







UNITED STATES GEOLOGICAL SURVEY

CHARLES D. WALCOTT, DIRECTOR

INDEX

ТО

NORTH AMERICAN GEOLOGY, PALEONTOLOGY, PETROLOGY, AND MINERALOGY

FOR

THE YEARS 1892-1900, INCLUSIVE

ВУ

FRED BOUGHTON WEEKS

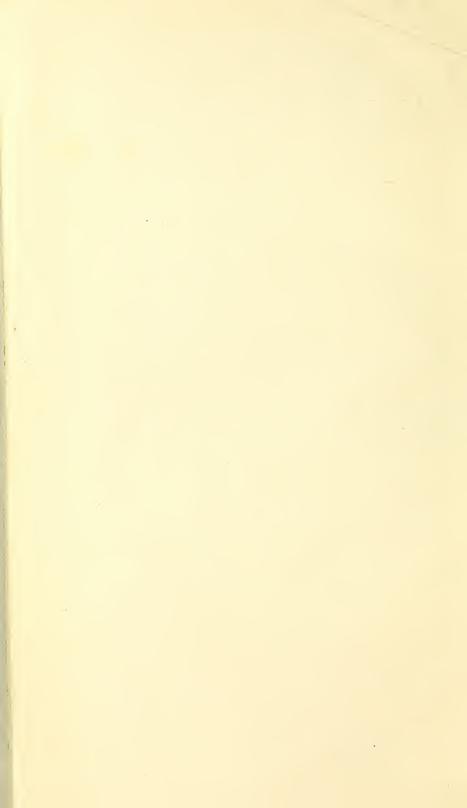


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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR, United States Geological Survey, Washington, D. C., August 2, 1901.

Sir: I have the honor to transmit herewith the manuscript for an Index to North American Geology, Palentology, Petrology, and Mineralogy for the Years 1892-1900, inclusive, and to request that it be published as a bulletin of the Survey. It is a companion to Bulletin No. 188.

Very respectfully,

F. B. WEEKS.

Hon. Charles D. Walcott. Director United States Geological Survey.



INTRODUCTION.

This index comprises the indexes contained in Bulletins Nos. 130, 135, 146, 149, 156, 162, and 172, together with the index to the literature for the year 1900. It is planned to accompany Bulletin No. 188, in which will be found the bibliographic entries to which all the authors' names and the numbers in this publication refer.

The subject headings, their subdivision and arrangement, are shown in the following "Classified key to index." They comprise geographic, geologic, mineralogic, paleontologic, and petrologic subdivisions. Under "Economic geology" is given a list of the useful minerals and ores described in publications examined; under "Mineralogy," a list of minerals described in such publications; under "Paleontology," a list of genera and species of fossils therein described; and under "Petrology," a list of rocks described; reference being made in each case, by author's name and number of entry in the Bibliography, to the paper in which the fossil, mineral, or rock is described.



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*Chemical analyses given in Bull. No. 168, U. S. Geological Survey, "Analyses of rocks from the laboratory of the United States Geological Survey, 1880-1899," by F. W. Clarke, are not contained in this list.

b This list of chemical analyses is for the years 1897 to 1900, inclusive.

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Monchiquite, Cross, 1197.

Monchiquite, Pirsson, 4394.

Monchiquite, Weed and Pirsson, 5935.

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Monzonite, Cross, 1201.

Monzonite, Iddings, 2845.

Monzonite, Pirsson, 4408.

Monzonite, Ransome, 4540.

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Artesian wells, Udden, 5508.

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Asphalt, Crawford, 1144, 1145.

Asphalt, Day, 1467.

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Asphalt, Orton, 4160.

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Asphalt, Vaughan, 5739.

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Asphaltum, Cooper, 1067, 1068.

Asphaltum, Lakes, 3352.

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Bauxite, McCalley, 3812, 3813, 3818.

Bitumen, Cooper, 1065.

Bitumen, Crawford, 1144.

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Building stone, Beyer, 432, 435, 436, 438.

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Building stone, Bishop, 448.

Building stone, Calvin, 696, 699, 705, 711, 712, 714, 715,

Building stone, Clark, O'Harra, Rowe, and Ries, 920.

Building stone, Crump, 1207.

Building stone, Cushing, 1248.

Building stone, Darton and Taff, 1318.

Building stone, Dawson, 1422.

Building stone, Day, 1465a, 1466.

Building stone, Diller, 1503, 1508.

Building stone, Emerson, 1676.

Building stone, Emmons, Cross, and Eldridge, 1707.

Building stone, Foerste, 1840.

Building stone, Gilbert, 2005.

Building stone, Gordon, 2063.

Building stone, Haworth, 2376.

Building stone, Hay, 2397.

Building stone, Hayes, 2417, 2418, 2419, 2420.

Building stone, Hopkins, 2735, 2736, 2737.

Building stone, Hopkins and Siebenthal, 2742,

Building stone, Keith, 2960, 2961, 2962, 2963.

Building stone, Keyes, 3074, 3075, 3080, 3088,

Building stone, Knight, 3209.

Building stone, Kümmel, 3280,

Building stone, Lee, 3437.

Building stone, Leonard, 3464.

Building stone, Lincoln, 3512.

Building stone, Lindgren, 3540.

Building stone, Lindgren and Turner, 3528.

Building stone, Lonsdale, 3567.

Building stone, Luther, 3602,

Building stone, Marbut, 3646, 3647, 3648, 3649.

Building stone, Mathews, 3737.

Building stone, McCalley, 3815.

Building stone, Merrill, 3930, 3962.

Building stone, Norton, 4124.

Building stone, Peale, 4267.

Building stone, Ries, 4616, 4622.

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Building stone, Whittle, 6124.

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Building stones, Crawford, 1144.

Building stones, Eldridge, 1624.

Building stones, Gorby, 2059.

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Building stones, Hopkins, 2738, 2741.

Building stones, Keith, 2958.

Building stones, McCalley, 3818.

Building stones, Nason, 4059, 4060.

Building stones, Norton, 4118.

Building stones, Simonds and Hopkins, 4966.

Building stones, Todd, 5407.

Building stones, Turner, 5451.

Building stones, Whittle, 6125.

Caleite, Rogers, 4655.

Cement, Bain, 180, 196.

Cement, Branner, 545.

Cement, Diller, 1508.

Cement, Keyes, 3074.

Cement, Lonsdale, 3568.

Cement, Luther, 3602.

Cement, Merrill, 3930.

Cement, Nason, 4060. Cement, Smith, E. A., 5011.

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Chalk, Bain, 196.

Chromie iron, Crawford, 1144, 1145.

Chromic iron, Glenn, 2041.

Chromite, Maynard, 3807.

Chromium, Glenn, 2042.

Chromium, Penhale, 4329.

Cinnabar, Blake, 467.

Cinnabar, Dawson, 1422.

Clay, Bain, 171, 172, 179, 180, 181, 192, 193, 195, 196, 205.

Clay, Beyer, 432, 435, 436, 438.

Clay, Blatchley, 489, 492.

Clay, Calvin, 696, 699, 712, 714.

Clay, Clark, O'Harra, Rowe, and Ries, 920.

Clay, Clendenin, 1018.

Clay, Crump, 1207.

Clay, Darton, 1308, 1314.

Clay, Emerson, 1676.

Clay, Emmons. 1698.

Clay, Emmons, Cross, and Eldridge, 1707.

Clay, Gilbert, 2005.

Clay, Gorby, 2059.

Clay, Gordon, 2063, 2065, 2069.

Clay, Hay, 2397.

Clay, Hayes, 2417, 2418, 2419, 2420.

Clay, Hoffman, 2654.

Clay, Hopkins, 2746, 2757.

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Clay, Jones, 2931.

Clay, Keith, 2960, 2963.

Clay, Kennedy, 3027, 3028.

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Clay, Lee, 3437.

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Clay, Lonsdale, 3567.

Clay, Marbut, 3646, 3647, 3648, 3649, 3650.

Clay, McCalley, 3815.

Clay, Merrill, 3930.

Clay, Nason, 4059, 4060.

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Clay, Shephard, 4946.

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Clay, Smith, 5017, 5019.

Clay, Tilton, 5392.

Clay, Todd, 5429.

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Coal, Brewer, 557.

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Coal, Campbell and Leverett, 742.

Coal, Campbell and Mendenhall, 732.

Coal, Clark, O'Harra, Rowe, and Ries, 920.

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Coal, Crawford, 1144, 1145.

Coal, Dall, 1268.

Coal, Darton and Taff, 1318.

Coal, Davis, F., 1345.

Coal, Dawson, 1422, 1429, 1431.

Coal, Day, 1467.

Coal, Diller, 1503, 1508, 1509.

Coal, D'Invilliers, 1515.

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Coal, Dumble, 1558, 1572, 1574.

Coal, Eldridge, 1623, 1624, 1625, 1629, 1632.

Coal, Eldridge and Muldrow, 1631.

Coal, Emmons, 1713.

Coal, Emmons, Cross, and Eldridge, 1707.

Coal, Fairbanks, 1734, 1759.

Coal, Fletcher, 1827, 1828.

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Coal, Forstall, 1875.

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Coal, Gorby, 2059.

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Coal, Hay, 2393, 2397.

Coal, Hayes, 2410, 2411, 2412, 2413, 2417, 2419,

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Coal, Head, 2440.

Coal, Hills, 2594, 2598, 2599.

Coal, Hodge, 2654.

Coal, Hoffman, 2657.

Coal, Holmes, 2716.

Coal, Horsewill, 2758.

Coal, Hosea, 2759.

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Coal, Jones, 2925.

Coal, Keith, 2961, 2963, 2965.

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Coal, Knerr, 3200.

Coal, Knight, 3202. Coal, Lakes, 3336, 3351.

Coal, Lane, 3388, 3399.

Coal, Langdon, 3402.

Coal, Leekie, 3426.

Coal, Lee, 3437.

Coal, Leonard, 3464.

Coal, Lesley, D'Invilliers, and Smith, 3468.

Coal, Lindgren, 3540.

Coal, Lindgren and Turner, 3527.

Coal, Lonsdale, 3567.

Coal, Maefarlane, 3626.

Coal, Marbut, 3646, 3647, 3648, 3649, 3650.

Coal, McCalley, 3815, 3818, 3820b.

Coal, McCreath and D'Invilliers, 3843.

Coal, Meade, 3892.

Coal, Mendenhall, 3903, 3904, 3905.

Coal, Norton, 4124.

Coal, Noyes, 4125. Coal, Orton, 4161.

Coal, Page, 4238.

Coal, Peale, 4267.

Coal, Penhallow, 4331.

Coal, Phillips, 4372.

Coal, Poole, 4414.

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Coal, Ramsay, 4547.

Coal, Roy, 4679, 4680.

Coal, Russell, 4721.

Coal, Safford, 4728.

Coal, Sehmitz, 4823. Coal, Scovell, 4886.

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Coal, Shephard, 4946.

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Coal, Tilton, 5392.

Coal, Tilton and Bain, 5396.

Coal, Todd, 5407.

Coal, Turner, 5449, 5451, 5487.

Coal, Vaughan, 5738, 5739.

Coal, Watts, 5895, 5896, 5897, 5899, 5900, 5903,

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Copper, Beals, 330.

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Copper, Blauvelt, 497.

Copper, Blue, 499.

Copper, Brewer, 559, 572, 575, 577, 584, 586, 587,

588, 592.

Copper, Brooks, 623.

Copper, Brown, 634.

Copper, Browne, 637.

Copper, Cabrera, 673.

Copper, Carlyle, 751, 753.

Copper, Cazin, 783.

Copper, Coleman, 1046, 1052.

Copper, Crawford, 1144, 1145.

Copper, Dawson, 1422.

Copper, Douglas, 1526, 1527, 1529.

Copper, Emmons, 1699.

Copper, Emmons and Tower, 1711.

Copper, Feehet, 1804.

Copper, Gilpin, 2029.

Copper, Grant, 2147.

Copper, Gwillim, 2228.

Copper, Haworth and Bennett, 6541.

Copper, Heinrich, 2450.

Copper, Herriek, 2459.

Copper, Hill, 2528.

Copper, Keith, 2958.

Copper, Kennedy, 3026.

Copper, Keyes, 3088.

Copper, Kümmel, 3284.

Copper, Lakes, 3338, 3365.

Copper, Layton, 3423.

Copper, Ledoux, 3436.

Copper, Lee, 3437.

Copper, Lindgren, 3522, 3545, 3548.

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Copper, Lyman, 3616.

Copper, McCormiek, 3842.

Copper, Moxham, 4046.

Copper, Paekard, 4237.

Copper, Penrose, 4346.

Copper, Peters and Brooks, 4361.

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Copper, Sehmitz, 4825.

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Copper, Thomas, 5367.

Copper, Todd, 5407.

Copper, Turner, 5451.

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Copper, Watts, 5898.

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Corundum, Gibson, 1980.

Corundum, Holmes, 2719.

Corundum, Hunt, 2808.

Corundum, King, 3177. Corundum, Lewis, 3507, 3508.

Corundum, Miller, 4009, 4010, 4011.

Corundum, Ropes, 4665.

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Fire clay, Hopkins, 2745.

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Fluorspar, Emmons, 1686.

Fluxing rocks, McCalley, 3820.

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Franklinite, Nason, 4065.

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Gold, Argall, 120.

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Gold, Beadle, 327, 328,

Gold, Becker, 336, 338, 340, 345, 346, 347.

Gold, Blake, 450, 451, 468, 469, 472, 483a.

Gold, Blandy, 487.

Gold, Blow, 498.

Gold, Blue, 499.

Gold, Bow, 510. Gold, Bratnober, 553.

Gold, Brewer, 560, 561, 562, 563, 565, 567, 568, 569,

570, 571, 573, 574, 577, 579, 582, 586, 587.

Gold, Broek, 611.

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Gold, Browne, 638, 639.

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Gold, Buelna, 661.

Gold, Cabrera, 673.

Gold, Carlyle, 751, 752, 753.

Gold, Chalmers, 789, 792.

Gold, Chance, 864.

Gold, Chapman, 868.

Gold, Cirkel, 888.

Gold, Coleman, 1033, 1035, 1040.

Gold, Collier, 1054.

Gold, Comely, 1058.

Gold, Comstock, 1063.

Gold, Corning, 1105. Gold, Courtis, 1108.

Gold, Crawford, 1141, 1144, 1145.

Gold, Dawson, 1422.

Gold, De Kalb, 1479.

Gold, Dewar, 1488.

Gold, Diller, 1498, 1503, 1508, 1513.

Gold, Douglas, 1530.

Gold, Draper, 1540.

Gold, Dunn, 1577, 1578.

Gold, Eldridge, 1624, 1625, 1629, 1632.

Gold, Eldridge and Muldrow, 1631.

Gold, Ellis, 1652a.

Gold, Emmons, 1686, 1698, 1699, 1713.

Gold, Emmons and Tower, 1711.

Gold, Endlich, 1720, 1721.

Gold, Fairbanks, 1741, 1743, 1747, 1751, 1752,

1755, 1760, 1762.

Gold, Faribault, 1790.

Gold, Fleck, 1825.

Gold, Fowler, 1880, 1881, 1882.

Gold, Frazer, 1887.

Gold, Freeman, 1894, 1895.

Gold, Furman, 1932.

Gold, Garside, 1947.

Gold, Gemmell, 1963.

Gold, Gilpin, 2029.

Gold, Gratacap, 2151.

Gold, Guentherodt, 2203.

Gold, Gwillim, 2226, 2228, 2229.

Gold, Gwillim and Johnson, 2227.

Gold, Halse, 2278, 2279.

Gold, Hardman, 2286, 2288.

Gold, Hastings, 2327, 2328, 2329.

Gold, Hazelhurst, 2439.

Gold, Heilprin, 2447.

Gold, Hershey, 2488, 2491, 2493, 2494.

Gold, Heydon, 2503, 2504.

Gold, Hill, 2570.

Gold, Hill, W. H., 2568, 2569.

Gold, Hille, 2571.

Gold, Hills, 2595, 2597.

Gold, Hoover, 2729, 2730.

Gold, Iddings and Weed, 2831.

Gold, Joseph, 2944.

Gold, Kemp, 3012,

Gold, Kirby, 3184.

Gold, Kraatz, 3268.

Gold, Ladshaw, 3304.

Gold, Lakes, 3305, 3307, 3308, 3309, 3310, 3313, 3314, 3316, 3317, 3320, 3322, 3326, 3331, 3337,

3340, 3341, 3342.

Gold, Lammers, 3378.

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Gold, Ledoux, 3436.

Gold, Lee, 3437.

Gold, Lindgren, 3516, 3519, 3522, 3523, 3526, 3529, 3531, 3533, 3534, 3539, 3540, 3543, 3547, 3548,

Gold, Lindgren and Turner, 3525, 3527, 3528.

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Gold, Ludloff, 3592.

Gold, Maguire, 3631, 3632, 3633.

Gold, McCallie, 3826.

Gold, McCarn, 3831, 3832. Gold, McConnell, 3839.

Gold, McInnes, 3882.

Gold, McKellar, 3886. Gold, Mendenhall, 3903, 3905, 3907.

Gold, Merrill, 3956.

Gold, Merritt, 3974.

Gold, Miller, 3989.

Gold, Moneton, 4021, 4022.

Gold, Moore, 4026.

Gold, Nason, 4067, 4068, 4070, 4071.

Gold, Neill, 4072.

Gold, Nevius, 4079.

Gold, Nitze, 4111.

Gold, Nitze and Hanna, 4108.

Gold, Nitze and Wilkens, 4109, 4112.

Gold, Nordenskjöld, 4113.

Gold, Nye, 4126.

Gold, Ogilvie, 4127.

Gold, Peale, 4267.

Gold, Pearce, 4271, 4272, 4278, 4278a.

Gold, Penrose, 4345, 4346, 4347.

Gold, Peters and Brooks, 4361.

Gold, Petre, 4362.

Gold, Phillips, 4367, 4373, 4374, 4375.

Gold, Porter, 4418, 4419. Gold, Posepny, 4421.

Gold, Prest, 4453.

Gold, Preston, 4456.

Gold, Purington, 4511, 4512, 4513. Gold, Quille, 4517, 4518, 4519.

Gold, Ransome, 4543.

Gold, Rickard, 4590, 4597, 4599, 4602, 4603.

Gold, Rohn, 4660.

Gold, Russell, 4721.

Gold, Schrader, 4830, 4833, 4834, 4835.

Gold, Schrader and Brooks, 4836.

Gold, Scupham, 4901.

Gold, Selwyn, 4909.

Gold, Sisley, 4988. Gold, Skewes, 4990, 4992.

Gold, Smith, 5012, 5016, 5019, 5020, 5021, 5023.

Gold, Snow, 5107, 5109.

Gold, Spaulding, 5111.

Gold, Spurr, 5171, 5173, 5174, 5176, 5184.

Gold, Spurr and Post, 5178.

Gold, Stone, 5257, 5259.

Gold, Storms, 5260, 5264, 5265, 5266, 5267, 5268.

Gold, Streeruwitz, 5272.

Gold, Stretch, 5277.

Gold, Stuart, 5279.

Gold, Sword, 5282a.

Gold, Tatham, 5334. Gold, Todd, 5407.

Gold, Tower, 5446.

Products described—Continued.

Gold. Tower and Smith, 5445.

Gold, Turner, 5451, 5454, 5459, 5465, 5467, 5471.

Gold, Turner and Ransome, 5470.

Gold, Underhill, 5545.

Gold, Van Diest, 5676.

Gold, Wadsworth, 5768. Gold, Waring, 5862.

Gold, Washburn, 5869.

Gold, Watts, 5903.

Gold, Weber, 5914.

Gold, Weed, 5932, 5934, 5945, 5946, 5953.

Gold, Weed and Pirsson, 5935, 5939,5942.

Gold, Wells, 6012, 6018.

Gold, Willmot, 6261.

Gold, Wiltsee, 6272.

Gold, Winchell, 6286.

Gold, Winchell and Grant, 6289.

Gold, Winchell, H. V., and Grant, 6285.

Gold, Winslow, 6400.

Gold, Woodman, 6428.

Gold, Wurtz, 6528.

Gold, Wynkoop, 6531.

Gold, Yale, 6532.

Gold, Yeates, McCallie, and King, 6435.

Grahamite, White, 6062.

Graphite, Blue, 499.

Graphite, Todd, 5407.

Grindstones, Kindle, 3167.

Grindstones, King, 3178.

Gypsum, Blake, 470.

Gypsum, Crawford, 1144, 1145.

Gypsum, Gilbert, 2005.

Gypsum, Grimsley, 2186, 2187, 2190, 2192.

Gypsum, Grimsley and Bailey, 2192a.

Gypsum, Haworth, 2376.

Gypsum, Hubbard, 2797.

Gypsum, Keyes, 3050, 3073, 3107.

Gypsum, Lane, 3388, 3400.

Gypsum, Lee, 3437, 3439.

Gypsum, Luther, 3602.

Gypsum, Rogers, 4655.

Gypsum, Watts, 5901.

Gypsum rock, Bailey and Whitten, 154.

Hübnerite, Blake, 481.

Infusorial earth, King, 3178.

Iron, Adams, 12, 14, 18.

Iron, Allen, 77.

Iron, Bachellery, 140.

Iron, Bailey, L. W., 156.

Iron, Bailey, 161.

Iron, Birkinbine, 444, 445, 446.

Iron, Blue, 499.

Iron, Brackenburg, 522.

Iron, Brewer, 554, 564, 589, 591.

Iron, Cabrera, 673.

Iron, Calvin, 696.

Iron, Campbell, 729.

Iron, Castleman, 777.

Iron, Catlett, 781, 782.

Iron, Chambers, 861.

Iron, Chance, 862.

Iron, Clements and Smyth, 1015.

Iron, Coleman, 1052.

Iron, Coleman and Willmot, 1047.

Iron, Crawford, 1144, 1145.

Economic geology-Continued.

Products described—Continued.

Iron, Cushing, 1248.

Iron, Darton, 1308, 1315, 1335.

Iron, Darton and Taff, 1318.

Iron, Dawson, 1422.

Iron, Dewar, 1488.

Iron, Diller, 1503.

Iron, Emmons, 1698, 1699.

Iron, Fletcher, 1827.

Iron, Gilpin, 2027.

Iron, Grant, 2118, 2123.

Iron, Hayes, 2410, 2411, 2412, 2413, 2417, 2418,

2419, 2420, 2422.

Iron, Hill, 2541, 2538.

Iron, Hoffman, 2657.

Iron, Hopkins, 2752, 2753.

Iron, Hulst, 2805.

Iron, Irving and Van Hise, 2869.

Iron, Jenkins, 2905.

Iron, Jennings, 2908.

Iron, Johnson, 2912, 2913, 2914.

Iron, Jopling, 2938, 2939.

Iron, Keith, 2958, 2963.

Iron, Kemp, 2981, 2987, 3002-3004, 3013.

Iron, Kennedy, 3027, 3028, 3033, 3034.

Iron, Keyes, 3088.

Iron, Kimball, 3162, 3164.

Iron, Lakes, 3311.

Iron, Landis, 3381.

Iron, Lee, 3437.

Iron, Lesley, 3466, 3467.

Iron, Lindgren, 3522. Iron, Lindgren and Turner, 3528.

Iron, McCalley, 3815, 3816, 3818, 3819.

Iron, McCallie, 3828, 3829.

Iron, McInnes, 3882.

Iron, Moxham, 4046.

Iron, Nason, 4057, 4055, 4066.

Iron, Nitze, 4104, 4110.

Iron, Parker, 4251.

Iron, Peehin, 4286, 4288.

Iron, Penrose, 4340, 4341, 4344, 4346

Iron, Phillips, 4376.

Iron, Poole, 4415.

Iron, Pope, 4417.

Iron, Posepny, 4427.

Iron, Raymond, 4551.

Iron, Ries, 4622.

Iron, Robertson, 4646.

Iron, Rominger, 4664.

Iron, Schmitz, 4823.

Iron, Shepard, 4946. Iron, Smyth, 5080, 5102.

Iron, Smyth, C. H., 5073.

Iron, Smyth, H. L., 5100.

Iron, Smyth and Finlay, 5101

Iron, Snow, 5108.

Iron, Spencer, 5124.

Iron, Spurr, 5165, 5166.

Iron, Stock, 871.

Iron, Streeruwitz, 5272.

Iron, Thompson, 5377.

Iron, Todd, 5407.

Iron, Turner, 5451. Iron, Van Hise, 5679, 5681.

Iron, Van Hise and Bayley, 5696, 5704, 5713

Products described—Continued.

Iron, Wadsworth, 5768.

Iron, Watts, 5903.

Iron, Winehell, H. V., 6278, 6280.

Iron, Winehell, N. H., 6287, 6290, 6292, 6295, 6296, 6297, 6354, 6355.

Iron, Winslow, Haworth, and Nason, 6397.

Iron, Wolff, 6406.

Kaolin, Holmes, 2726.

Kaolin, Hopkins, 2747, 2748.

Kaolin, Nevius, 4074.

Lead, Bain, 207.

Lead, Beadle, 326.

Lead, Blake, 454, 458, 461,

Lead, Boyd, 514.

Lead, Branner, 552.

Lead, Brewer, 564, 576.

Lead, Calvin, 696.

Lead, Calvin and Bain, 720.

Lead, Crawford, 1144, 1145.

Lead, Dewar, 1488.

Lead, Emmons, 1699.

Lead, Feehet, 1804.

Lead, Gilpin, 2029.

Lead, Haworth, 2376.

Lead, Hay, 2393.

Lead, Hayes, 2418.

Lead, Hedburg, 2443.

Lead, Herrick, 2457, 2459,

Lead, Jenney, 2906.

Lead, Kendall, 3024.

Lead, Keyes, 3088.

Lead, Lakes, 3333.

Lead, Lee, 3437.

Lead, Leonard, 3458, 3459, 3460, 3461, 3462.

Lead, Lesley, 3466.

Lead, Nason, 4062.

Lead, Penrose, 4346. Lead, Posephy, 4421.

Lead, Robertson, 4647.

Lead, Roeth, 4650.

Lead, Shepard, 4946.

Lead, Simonds and Hopkins, 4966.

Lead, Todd, 5407.

Lead, Warren, 5868.

Lead, Winslow, 6385, 6392, 6395.

Lignite, Kennedy, 3027, 3028.

Lime, Bain, 172,

Lime, Calvin, 696, 699.

Lime, Clark, O'Harra, Rowe, and Ries, 920.

Lime, Keith, 2960.

Lime, Keyes, 3074, 3075.

Lime, Marbut, 3646, 3647.

Lime, Merrill, 3930.

Lime, Norton, 4118.

Lime, Shepard, 4946.

Limestone, Day, 1466.

Limestone, Dresser, 1541.

Limestone, Ries, 4634.

Loess, Beyer, 435.

Loess, Chamberlin, 830.

Loess, Shimek, 4955.

Loess, Udden, 5510.

Magnesite, Crawford, 1144, 1145.

Magnetite, Nitze, 4101, 4102, 4103.

Magnetite, Peehin, 4287.

Economic geology-Continued.

Products described—Continued.

Manganese, Brewer, 568. Manganese, Cabrera, 673.

Manganese, Catlett, 778, 782.

Manganese, Brumell, 640.

Manganese, Crawford, 1144, 1145.

Manganese, Emmons, 1699.

Manganese, Hall, 2241.

Manganese, Halse, 2277.

Manganese, Jennison, 2909.

Manganese, Keyes, 3088.

Manganese, Lakes, 3311.

Manganese, McCalley, 3818.

Manganese, Penrose, 4342, 4343, 4344, 4346.

Manganese, Spencer, 5124.

Manganese, Todd, 5407.

Manganese, Watts, 5894, 5903.

Manganese, Weeks, 5964, 5966.

Manganese, Winchell, N. H., 6303.

Marble, Darton, 1308.

Marble, Keith, 2960, 2962, 2963.

Marble, McCallie, 3823.

Marble, McCalley, 3818.

Marble, Smyth, C. H., jr., 5080.

Marcasite, Blake, 457.

Marl, Barkey, 425e.

Marl, Clark, 906.

Marl, Darton, 1314.

Marl, Davis, 1343. Mica, Blue, 499.

Mica, Fuller, 1905,

Miea, Henderson, 2453,

Mica. Holmes, 2722.

Mica, Todd, 5407.

Mineral paint, Bain, 171. Mineral paint, Calvin, 696.

Mineral water, Crawford, 1145.

Mineral water, McCalley, 3815.

Mineral water, Merrill, 3930.

Mineral water, Peale, 4267.

Mineral waters, Lane, 3395.

Monazite, Metzger, 3978.

Monazite, Nitze, 4105, 4106, 4111a.

Natural gas, Bailey, E. H. S., 153.

Natural gas, Bain, 193.

Natural gas, Bishop, 448, 449.

Natural gas, Blue, 499. Natural gas, Boyd, 513.

Natural gas, Brumell, 641, 643.

Natural gas, Coste, 1106.

Natural gas, Crawford, 1144, 1145.

Natural gas, Cummins, 1222. Natural gas, Gorby, 2057, 2058, 1059.

Natural gas, Haworth, 2356, 2362, 2876.

Natural gas, Jordan, 2942, 2943.

Natural gas, Keyes, 3049.

Natural gas, Lakes, 3347.

Natural gas, Lane, 3388. Natural gas, Leach, 3424, 3425.

Natural gas, Leonard, 3463, 3464.

Natural gas, Lineoln, 3512.

Natural gas, Lindgren and Turner, 3527.

Natural gas, McCalley, 3815.

Natural gas, McGee, 3845.

Natural gas, Orton, 4160, 4165, 4168, 4172.

Natural gas, Phillips, 4365.

Products described—Continued.

Natural gas, Phinney, 4377.

Natural gas, Sadtler, 4725.

Natural gas, Sherzer, 4954.

Natural gas, Strieby, 5278.

Natural gas, Topley, 5442.

Natural gas, Watts, 5908.

Natural gas, Weeks, 5967.

Natural gas, White, 6061.

Natural gas, Witter, 6401.

Nickel, Austin, 134.

Nickel, Austin, 131.

Nickel, Argall, 119.

Nickel, Bain (J. W.), 215.

Nickel, Barlow, 242.

Nickel, Bell, 400.

Nickel, Blue, 499.

Nickel, Bush, 669.

Nickel, Charleton, 873, 874,

Nickel, Emmens, 1684.

Nickel, Emmons, 1699.

Nickel, Hoffman, 2657.

Nickel, Kemp, 2985.

Nickel, Keyes, 3088.

Nickel, McCharles, 3833, 3834.

Nickel, Merritt, 3973.

Nickel, Mickle, 3979.

Nickel, Miller, 4007.

Nickel, Olcott, 4135,

Nickel, Packard, 4232.

Nickel, Todd, 5407.

Nickel, Turner, 5473.

Nickel, Walker, 5823.

Ocher, Couper, 1107.

Oil, Knight, 3215.

Oil, Orton, 4170, 4172.

Oil, Palache, 4255.

Oil, Sherzer, 4954.

Oil, Watts, 5910, 5911, 5912,

Onyx, De Kalb, 1480.

Onyx, Gorby, 2060.

Onyx, Merrill, 3958.

Onyx, Merrill, G. P., 3944.

Onyx marble, De Kalb, 1481.

Ozokerite, Ohly, 4133.

Ozokerite, Gosling, 2071.

Peat, Shaler, 4924.

Petroleum, Bailey, E. H. S., 153.

Petroleum, Benedict, 414.

Petroleum, Bishop, 449.

Petroleum, Blatchley, 490, 494.

Petroleum, Blue, 499.

Petroleum, Brumell, 641, 642, 643.

Petroleum, Cooper, 1066, 1067, 1068.

Petroleum, Crawford, 1144, 1145.

Petroleum, Day, 1460.

Petroleum, Dumble, 1570, 1571.

Petroleum, Eldridge, 1620, 1624.

Petroleum, Fairbanks, 1758, 1771.

Petroleum, Forstall, 1875.

Petroleum, Gorby, 2057, 2059.

Petroleum, Haworth, 2356, 2362, 2376.

Petroleum, Hubbard, 2797.

Petroleum, Irving, 2868.

Petroleum, Keith, 2965.

Petroleum, Keyes, 3049.

Economic geology-Continued.

Products described—Continued.

Petroleum, Knight, 3203, 3205, 3206.

Petroleum, Lane, 3388.

Petroleum, Lakes, 3343.

Petroleum, Mabery, 3620.

Petroleum, McCalley, 3815.

Petroleum, Merrill, 3930.

Petroleum, Miller, 4004.

Petroleum, Oliphant, 4136.

Petroleum, Orton, 4160, 4168, 4172. Petroleum, Peckham, 4290, 4292,

Petroleum, Phillips, 4365, 4366, 4376a.

Petroleum, Ross, 4666.

Petroleum, Sadtler, 4725, 4726. Petroleum, Schmitz, 4826.

Petroleum, Slosson, 5996.

Petroleum, Topley, 5442.

Petroleum, Van Ingen, 5714.

Petroleum, Watts, 5908, 5909.

Petroleum, White, 6055, 6061.

Phosphate, Branner, 535, 540.

Phosphate, Brown, 630, 631.

Phosphate, Carnot, 754.

Phosphate, Codington, 1023.

Phosphate, Cox, 1113.

Phosphate, Davidson, 1340.

Phosphate, Eldridge, 1621.

Phosphate, Hayes, 2416, 2423, 2424, 2430.

Phosphate, Johnson, 2918.

Phosphate, Killebrew, 3159, 3160.

Phosphate, McCallie, 3824.

Phosphate, Meadows and Brown, 3894.

Phosphate, Memminger, 3900. Phosphate, Miller, 3985.

Phosphate, Phillips, 4370, 4371.

Phosphate, Pratt, 4452.

Phosphate, Reese, 4565.

Phosphate, Safford, 4731, 4732.

Phosphate, Small, 4999.

Phosphate, Smith, 5003, 5013.

Phosphate, Wells, 6008.

Phosphate, Wills, 6262.

Phosphate, Wyatt, 6529.

Platinum, Crawford, 1144.

Platinum, Day, 1461, 1464.

Platinum, Donald, 1524.

Platinum, Hoffman, 2657.

Platinum, Streeruwitz, 5272.

Pumice, King, 3178.

Pyrophyllite, Pratt, 4451a.

Pyrrhotite, Kemp, 2985.

Pyrrhotite, Nicol, 4098.

Pyrrhotite, Raymond, 4555.

Quicksilver, Becker, 333.

Quicksilver, Colquhoun, 1056. Quicksilver, Crawford, 1144, 1145.

Quicksilver, Emmons, 1699.

Quicksilver, Fairbanks, 1747.

Quicksilver, Halse, 2281.

Quicksilver, Lindgren and Turner, 2528.

Quicksilver, Rundall, 4693.

Quicksilver, Turner, 5489.

Quicksilver, Watts, 5894, 5896, 5902, 5905, 5907.

Road material, Bain, 192.

Road material, Benedict, 416.

Road material, Calvin, 714.

Products described—Continued.

Road material, Clark, O'Harra, Rowe, and Ries, 920.

Road material, Cushing, 1248.

Road material, Leonard, 3464.

Road material, Lincoln, 3512.

Road material, Marbut, 3646.

Road material, Morris, 4045.

Road material, Ries, 4622.

Road material, Salisbury and Knapp, 4773.

Road material, Shepard, 4946.

Road material, Tilton and Bain, 5396.

Road material, Whittle, ¢124.

Road materials, Bain, 171, 172, 179.

Road materials, Beyer, 438.

Road materials, Calvin, 699.

Road materials, Hayes, 2417.

Road materials, Holmes and Cain, 2718a.

Road materials, Lane, 3400.

Road materials, Lonsdale, 3567.

Road materials, McCalley, 3815, 3818.

Road materials, Merrill, 3934.

Road materials, Shaler, 4922, 4923.

Salt, Bishop, 447.

Salt, Crawford, 1144.

Salt, Haworth, 2373.

Salt, Hay, 2393.

Salt, Hubbard, 2797.

Salt, Kennedy, 3027.

Salt, Lane, 3400.

Salt, Lucas, 3580, 3581.

Salt, Luther, 3600, 3602, 3603.

Salt, Preston, 4464.

Salt, Romeyn, 4662.

Salt, Veatch, 5746.

Salt, Ward, 5861.

Sandstone, Day, 1466.

Sapphire, Weed, 5946.

Shale, Lane, 3400.

Shale, Ries, 4636, 4637.

Siliceous dolomite, McCalley, 3818.

Silver, Andersen, 111.

. Silver, Austin, 133.

Silver, Barlow, 253.

Silver, Barrell, 258, 259.

Silver, Beadle, 326.

Silver, Bell, 412.

Silver, Blake, 483a.

Silver, Blandy, 487.

Silver, Blauvelt, 497.

Silver, Brewer, 576, 577, 587.

Silver, Brock, 611.

Silver, Brown, 634.

Silver, Buelna, 661.

Silver, Burdsal, 663.

Silver, Carlyle, 750, 751, 752, 753.

Silver, Clark, 890.

Silver, Clark, E., 889.

Silver, Comstock, 1062.

Silver, Corning, 1105.

Silver, Crawford, 1144, 1145.

Silver, Dewar, 1488.

Silver, Diller, 1513.

Silver, Draper, 1540.

Silver, Eldridge, 1625.

Silver, Emmons, 1686, 1698, 1699, 1705, 1706, 1708,

1712.

Economic geology-Continued.

Products described—Continued.

Silver, Emmons and Tower, 1711.

Silver, Fairbanks, 1755, 1762.

Cilvon Books, 170

Silver, Farish, 1791.

Silver, Fechet, 1804.

Silver, Fenner, 1810. Silver, Fowler, 1881, 1882.

Silver, Fowler, 1881,

Silver, Furman, 1932.

Silver, Grant, 2135.

Silver, Gratacap, 2151.

Silver, Gwillim, 2226, 2228.

Silver, Gwillim and Johnson, 2227.

Silver, Halse, 2280.

Silver, Hardman, 2286, 2288. Silver, Herrick, 2457.

Silver, Hoffman, 2657.

Silver, Homman, 265

Silver, Joseph, 2944.

Silver, Kendall, 3024.

Silver, Keyes, 3088. Silver, Kirby, 3186.

Silver, Kunz, 3299.

Silver, Lakes, 3305, 3310, 3320, 3331, 3333, 3338.

Silver, Lammers, 3378.

Silver, Lavagnino, 3405.

Silver, Lee, 3437.

Silver, Lindgren, 3523, 3548.

Silver, McCormick, 3841.

Silver, MacMechen, 3629.

Silver, McKellar, 3884.

Silver, Nason, 4071.

Silver, Ordonez, 4149.

Silver, Penrose, 4346.

Silver, Petre, 4362. Silver, Porter, 4418, 4419.

Silver, Posephy, 4421.

Silver, Purington, 4511, 4512, 4513.

Silver, Rickard, 4590, 4602.

Silver, Spurr, 5171, 5175.

Silver, Storms, 5260, 5261.

Silver, Streeruwitz, 5272.

Silver, Todd, 5407. Silver, Tower, 5446.

Silver, Tower and Smith, 5445.

Silver, Van Diest, 5676.

Silver, Warren, 5868.

Silver, Weed, 5934, 5945, 5946, 5953.

Silver, Weed and Pirsson, 5935, 5939.

Silver, Wiltsee, 6274.

Silver, Wynkoop, 6531.

Slate, Beyer, 433.

Slate, Day, 1466. Slate, Merriman, 3970.

Soda, Blake, 477.

Soda, Chatard, 877a.

Soda, Crawford, 1144.

Soda, Knapp, 3197.

Soda, Knight, 3210.

Sodium, Packard, 4233.

Sodium earbonate, Knapp, 3198.

Soil, Bain, 172.

Soil, Beyer, 432.

Soil, Calvin, 699.

Soil, Campbel!, 729.

Soil, Darton, 1315. Soil, Darton and Taff, 1318.

Soil, Haworth, 2364.

Products described—Continued.

Soil, Hay, 2397.

Soil, Hayes, 2417, 2418, 2419, 2420, 2422.

Soil, Lindgren and Turner, 3528.

Soil, Lonsdale, 3567.

Sulphur, Fulton, 1920.

Sulphur, Smith, 5014.

Sulphur, Watts, 5901.

Tale, Luquer, 3594a.

Tale, Nevius, 4075, 4076.

Tale, Pratt, 4451a.

Tale, Sahlen, 4734.

Tale, Smyth, 5080, 5090, 5092.

Tin, Claypole, 981.

Tin, Emmons, 1699.

Tin, Fairbanks, 1765.

Tin, Halse, 2282.

Tin, Ingalls, 2862,

Tin, Kempton, 3023.

Tin, Rolker, 4661.

Tin, Todd, 5407.

Tin, Ulke, 5528, 5530.

Titaniferous magnetite, Kemp, 2993, 3008.

Tripoli, Quimby, 4520.

Tungsten, Blake, 483a.

Uintaite, Eldridge, 1626, 1627.

Uranium, Hillebrand and Ransome, 2587.

Vanadium, Hillebrand and Ransome, 2587.

Water supply, Bain, 171, 172, 179, 180, 205.

Water supply, Barbour, 237.

Water supply, Branner, 552.

Water supply, Calvin, 699.

Water supply, Campbell and Leverett, 742.

Water supply, Darton, 1328.

Water supply, Gordon, 2069.

Water supply, Hay, R., 2394.

Water supply, Hill and Vaughan, 2556.

Water supply, Hills, 2599.

Water supply, Lane, 3394.

Water supply, Leverett, 3486, 3487, 3495, 3496,

3497.

Water supply, Lonsdale, 3467.

Water supply, Mead, 3887, 3888, 3889.

Water supply, Newell, 4085.

Water supply, Orton, 4169.

Water supply, Shaler, 4931.

Water supply, Tilton, 5392.

Water supply, Todd, 5436.

Water supply, Vaughan, 5739,

Water supply, Wilson, 6269.

Whetstones, Kindle, 3167.

Wolfram, Gurlt, 2225.

Wolframite, Blake, 478, 479, 483a.

Zine, Bain, 207.

Zine, Blake, 457, 458, 461, 464, 465. Zine, Boyd, 514.

Zinc, Branner, 552.

Zinc, Brewer, 564.

Zine, Calvin, 696.

Zine, Calvin and Bain, 720. Zinc, Case, 775, 776.

Zine, Crawford, 1144,

Zine, Emmons, 1699.

Zinc, Garrison, 1946.

Zine, Haworth, 2376.

Economic geology-Continued.

Products described—Continued.

Zine, Hay, 2393.

Zinc, Hedburg, 2443.

Zine, Heinrich, 2449.

Zinc, Jenney, 2906.

Zinc, Kemp, 2982.

Zinc, Leonard, 3456, 3458, 3460, 3461, 3462.

Zinc, Lesley, 3466.

Zine, Nason, 4062.

Zinc, Penrose, 4346.

Zinc, Robertson, 4647.

Zinc, Roeth, 4650.

Zine, Schmitz, 4827.

Zine, Shepard, 4946.

Zine, Simonds and Hopkins, 4966.

Zinc, Steele, 5211.

Zinc, Wheeler, 6027.

Zine, Winslow, 6385, 6392.

Florida.

Albion phosphate district, Cox, 1113.

Cenozoie geology along the Apalachicola River, Dall and Stanley-Brown, 1264.

Chattahoochee embayment, the, Johnson, 2915.

Chipola Miocene, Foerste, 1839.

Contributions to Tertiary fauna of Florida, Dall, 1267, 1272, and 1281.

Diatomaceous deposits at St. Augustine, Fla., Boyer, 517.

Florida elevated reef, Agassiz, 53.

Florida kaolin deposits, Mcmminger, 3901.

Florida pebble phosphates, Codington, 1023.

Florida rock phosphate, Wells, 6008.

Fossil vertebrates from Alachua clay, Leidy, 3447.

Geological sketch of Florida, Cox, 1112.

Geology of Florida, Johnson, 2918.

Geology of southern Florida, Griswold, 2200.

Les variations des apatites, etc., Carnot, 754.

New Pliocene Polygyra, Johnson, 2910.

Note on the Florida reef, Agassiz, 50.

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Phosphates, Florida, Davidson, 1340.

Phosphates, Florida, Pratt, 4452.

Phosphates of Florida, Eldridge, 1621.

Phosphates of Florida, Wyatt, 6529.

Phosphate of lime, occurrence of, Davidson,

Tertiary mollusks of Florida, Dall, 1259.

Vicksburg Eocene and Chattahoochee Miocene, Foerste, 1836.

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Absarokite group, Hague, 2236.

Acadian, Clarke, 971.

Acadian, Clarke and Schuchert, 965.

Admiralty group, Adams, 17.

Admiralty till, Willis and Smith, 6216.

Aftonian, Bain, 199.

Aftonian, Beyer, 435.

Aftonian, Calvin, 708.

Aftonian stage, Beyer, 434.

Ajibik quartzite, Smyth, 5103.

Ajibik quartzite, Van Hise, 5709.

Ajibik quartzite, Van Hise and Bayley, 5704.

^a This list of formation names is for the years 1898-1900, inclusive.

Alaehua clay, Leidy, 3447.

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Niagaran, Clarke and Schuchert, 965, 977.

Niagara shale, Foerste, 1843. Nilkoka beds, Brooks, 622.

Nilkola formation, Peters and Brooks, 4361.

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Niobrara, Williston, 6232.

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Norristown shale, Lyman, 3616.

Norton formation, Campbell, 740.

Novaculite series, Ashley, 123.

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Nutzotin series, Brooks, 623.

Oak Creek beds, Ward, 5856.

Oakland limestone lentils, Diller, 1508.

Oceanic series, Hill, 2564.

Ocoya Creek formation, Blake, 473.

Ogallala formation, Darton, 1328.

Oklune series, Spurr, 5184.

Old red sandstone, Marcou, 3663.

Olive grit, Dale, 456.

Oneida conglomerate, Clarke, 971.

Oneida conglomerate, Clarke and Schuchert, 965.

Oneida conglomerate, Luther, 3603.

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Oneonta beds, Clarke and Schuchert, 965.

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Oneonta sandstone, Clarke, 958.

Onondaga, Ries, 4622.

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Orca series, Schrader, 4830, 4833.

Oread limestone, Haworth, 2375. Oread limestone, Wilson, 6270.

Oriskanian, Clarke, 971.

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Osage, Weller, 5990, 5993. Osage City shale, Beede, 390.

Osage series, Broadhead, 606.

Osage shale, Crane, 1137.

Osage shale, Haworth, 2375.

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Osgood limestone, Foerste, 1839, 1840.

Oswegan, Clarke, 971.

Oswegan, Clarke and Schuchert, 965, 977.

Oswegatchie series, Smyth, 5093.

Oswego, Winehell and Ulrich, 6337.

Oswego limestone, Haworth, 2375.

Otis limestone, Norton, 4124.

Otter shale, Weed, 5953.

Otterdale sandstone, Shaler and Woodworth,

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Oxmoor sandstone, McCalley, 3818.

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Packard rhyolite, Smith, 5032.

Paine shales, Weed, 5953.

Palisades conglomerate, Spurr, 5173.

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Panama formation, Hershey, 2489.

Panama formation, Hill, 2557.

Panola formation, Campbell, 736, 737.

Park shale, Weed, 5953.

Parkville shale, Keyes, 3142, 3148.

Parma sandstone, Lane, 3394.

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Parting quartzite series, Spurr, 5175.

Paso Robles formation, Fairbanks, 1768.

Patapsco, Clark and Bibbins, 913.

Patapsco formation, Clark, 912.

Patoot series, White and Schuchert, 6048,

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Patuxent formation, Clark, 912.

Pawnee limestone, Haworth, 2375.

Pawnee limestone, Keyes, 3113.

Pawtucket shales, Shaler, Woodworth, and Foerste, 4940.

Payette formation, Lindgren, 3539, 3540, 3548.

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Pecatonica limestone, Hershey, 2480.

Pelham limestone, McCalley, 3818.

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Pennington shale, Campbell, 736, 737, 739, 740.

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Pietou formation, Ami, 110.

Pierre, Darton, 1322.

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Pierre formation, Gilbert, 2005. Pierre shale, Hills, 2598, 2599.

Pilgrim limestone, Weed, 5953.

Pine Creek conglomerate, Udden, 5517, 5522.

Pinto diorite, Weed, 5945.

Pinyon formation, Smith, 5039.

Platte shale, Keyes, 3128, 3142, 3148.

Plattsburg limestone, Keyes, 3128, 3142.

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Pleasanton shale, Haworth, 2375,

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Pleasanton shale, Marbut, 3646, 3648, 3649.

Pocahontas formation, Campbell, 735.

Pocono formation, Clark, 912.

Pocono formation, O'Harra, 4129. Pocono sandstone, Darton, 1335.

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Poison Canvon formation, Hills, 2599.

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Pokegama quartzite, Winchell, 6354, 6355, 6372.

Polk Bayou limestone, Williams, 6191.

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Porous formation, Hill, 2549.

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Portage beds, Clarke, 971.

Portage beds, Clarke and Schuchert, 965.

Portage group, Bishop, 448.

Portage group, Clarke, 957, 958.

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Portage sandstone, Luther, 3601.

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Poteau group, Drake, 1539.

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Potosi rhyolite series, Cross, 1201.

Potsdam, Blatchley and Ashley, 496.

Potsdam, Cushing, 1245.

Potsdam, Ells, 1661.

Potsdam, Wadsworth, 5770.

Potsdam sandstone, Buckley, 655.

Potsdam sandstone and limestone, Clarke, 971.

Potsdamian, Clarke, 971.

Potsdamian, Clarke and Schuchert, 965.

Pottstown shale, Lyman, 3616.

Pottsville, White, 6052.

Pottsville formation, O'Harra, 4129.

Pottsville formation, Clark, 912,

Poxino Island shale, Weller, 6003.

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Price sandstone, Campbell, 735.

Princeton conglomerate, Campbell, 735.

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Puckwunge conglomerate, Winchell, 6349, 6358, 6372.

Puckwunge slate, Winchell, 6328.

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Puerco formation, Smith, 5039.

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Puget formation, Willis, 6208, 6206.

Puget formation, Willis and Smith, 6216.

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Pulaski formation, Diller, 1509.

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Purgatory conglomerate, Shaler, Woodworth and Foerste, 4940.

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Quadrant group, Weed, 5953.

Quail porphyry, Emmons, 1712.

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Quebec group, Dawson, 1423.

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Raleigh limestone, Campbell, 735.

Rampart series, Emmons, 1713.

Rampart series, Spurr, 5173.

Rancocas formation, Clark, 910, 912, 915.

Random terrane, Walcott, 5818.

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Randville dolomite, Van Hise and Bayley, 5713.

Rapid schist, Schrader, 4834.

Raritan, Clark and Bibbins, 913.

Raritan formation, Clark, 912,

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Red Bluff formation, Cragin, 1128.

Red Lake moraine, Todd, 5435.

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Reeder sandstone, Gould, 2073.

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Richmond beds, Clarke, 971.

Richmond beds, Clarke and Schuchert, 965.

Richmond beds, Hill, 2549.

Richmond shale, Campbell, 736.

Rico formation, Cross and Spencer, 1206.

Riga schist, Hobbs, 2646.

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Riversdale formation, Ami, 110.

Robinson diorite, Weed, 5946.

Robinson formation, Turner, 5467.

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Rochester shale, Clarke and Schuehert, 965. Rockeastle conglomerate lentil, Campbell, 736,

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Rockford limestone, Hopkins and Siebenthal,

Rockville conglomerate, Calvin, 714.

Rockwood formation, Campbell, 735, 740.

Rockwood formation, Clark, 912.

Rockwood formation, Darton, 1335.

Rockwood formation, Spencer, 5115.

Rogersville shale, Campbell, 740.

Romney formation, Clark, 912,

Romney formation, O'Harra, 4129.

Romney shale, Campbell, 735.

Romney shale, Darton, 1335.

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Rondout waterlime, Clarke and Schuchert, 965, 977.

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Roslyn sandstone, Russell, 4721.

Rossville shale and sandstone, Beede, 390.

Rowe schist, Emerson, 1676, 1677.

Roxbury conglomerate, Burr and Burke, 667.

Russell formation, Campbell, 735, 740.

Rutledge limestone, Campbell, 740.

Sac limestone, Shepard, 4946.

Sachuest arkose, Shaler, Woodworth, and Foerste, 4940.

Saganaga granite, Grant, 2132.

Sailor Canyon formation, Lindgren, 3534,3547.

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St. Clair shales, Sherzer, 4954.

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St. Louis limestone, Maebride, 3624.

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St. Peter sandstone, Norton, 4122.

St. Peters sandstone, Blatchley and Ashley,

St. Peters sandstone, Buckley, 655.

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Salina, Ries, 4623.

Salina beds, Clarke, 971.

Salina beds, Clarke and Schuehert, 965.

Salina formation, O'Harra, 4129.

Salina group, Bishop, 448.

Salina group, Lincoln, 3512. Salina group, Luther, 3602, 3603.

Salt Fork division, Cragin, 1128.

Sangamon soil, Campbell and Leverett, 742.

San Juan formation, Cross, 1201.

San Juan formation, Lakes, 3319.

San Miguel bed, Vaughan, 5738.

San Miguel beds, Hill, 2557.

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San Miguel formation, Cross, 1201.

San Miguel formation, Purington, 4512.

San Miguel formation, Smith, 5039.

San Pablo formation, Fairbanks, 1768. San Pablo formation, Knowlton, 3249.

San Pablo formation, Merriam, 3920, 3922.

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Savage formation, Clark, 912.

Savanna sandstone, Taff, 5290.

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Savoy schist, Emerson, 1676, 1677.

Sawatch quartzite, Emmons, 1712.

Saxicava sand, Wilson, 6279.

Schoharie grit, Clarke, 971.

Schoharie grit, Clarke and Schuchert, 965. Scott shale, Keith, 2965.

Senecan, Clarke, 971.

Senecan, Clarke and Schuchert, 965, 977.

Sequoia formation, Campbell, 735. Severy shale, Haworth, 2375.

Sevier shale, Campbell, 735, 740.

Sewell marls, Clark, 915.

Sewell formation, White, 6052.

Shark River formation, Clark, 910, 915.

Shasta, Stanton, 5201.

Shawangunk grit, Clarke, 971.

Shawangunk grit, Clarke and Schuchert, 965.

Shelbyville moraine, Leverett, 3495.

Shenandoah formation, Clark, 912.

Shenandoah limestone, Campbell, 740.

Shenandoah limestone, Darton, 1335.

Shenandoah limestone, Prosser, 4501.

Shenandoah limestone, Spencer, 5115.

Sherburne formation, Prosser, 4497.

Sheridan formation, Matthew, 3804.

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Shoal Creek limestone, Hill and Vaughan,

Shunganunga shale, Beede, 390.

Shushitna slates, Eldridge, 1632.

Shuswap series, Dawson, 1426.

Siamo slate, Van Hise, 5709.

Siamo slate, Van Hise and Bayley, 5704.

Signal Hill sandstone, Walcott, 3815.

Sillery series, Dawson, 1423.

Siluric, Clarke, 971.

Silurie, Clarke and Schuchert, 965.

Silver Lake shale, Beede, 390.

Silveria? formation, Leverett, 3495.

Similkameen formation, Russell, 4721.

Sioux quartzite, Beyer, 433.

Sioux quartzite, Todd, 5436.

Sieux quartzite, Wilder, 6140.

Skwentna series, Spurr, 5184.

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Smalls Brook limestone, Ami, 87.

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Smelt Brook shales, Ami, 87.

Smith River lake beds, Weed, 5946.

Snyder Creek shales, Gallaher, 1933a.

Sockanosset sandstone, Shaler, Woodworth,

and Foerste, 4940.

Soldier Creek shale, Beede, 390.

Sooke beds, Merriam, 3924.

Sphinx formation, Smith, 5039.

Spokane shale, Weed, 5953. Spokane shales, Walcott, 3815.

Spring Creek clays, Gould, 2073.

Spring Creek limestone, Williams, 6191.

Spring rock, Beede, 390.

Square Lake limestone, Williams, 6190.

Stanford conglomerate, Weed, 5945,

Stanton limestone, Beede, 390.

State quarry limestone, Calvin, 707, 711.

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Stockbridge, Mareou, 3664.

Stockton group, Kümmel, 3283.

Stockton series, Kümmel, 3277, 3279, 3280.

Stones River, Winehell and Ulrich, 6337.

Stonewall limestone, Cragin, 1130.

Stonybrook quartzite, Hobbs, 2627 Stuntz conglomerate, Winchell, 6328, 6359.

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Sturgeon quartzite, Van Hise and Bayley, 5713. Styliolus limestone, Grabau, 2085.

Sub-Aftonian, Calvin, 714.

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Sugarloaf arkose, Emerson, 1676, 1677.

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Sunrise series, Mendenhall, 3903, 3907.

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Swansea rhyolite, Smith, 5032.

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Sylamore sandstone, Williams, 6189, 6191.

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Tachatna series, Spurr, 5184.

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Taconic, Clarke and Schuchert, 965.

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Tahkandit series, Spurr, 5173.

Talcott, diabase, Emerson, 1676.

.Talladega slate, McCalley, 3818.

Taloga formation, Cragin, 1128.

Tanana schists, Mendenhall, 3907.

Tanana schists, Peters and Brooks, 4361.

Tanana series, Brooks, 622.

Tanana series, Mendenhall, 3903.

Tar sands, Tyrrell, 5501.

Taylor formation, Hill and Vaughan, 2556.

Teay formation, Campbell, 741.

Tecumseh shale, Beede, 390.

Tejon, Kimball, 3161.

Tejon formation, Smith, 5039.

Tejon formation, Turner and Ransome, 5470.

Tellico sandstone, Campbell, 740.

Tellowa formation, Campbell, 735.

Tenmile River beds, Shaler, Woodworth, and

Foerste, 4940.

Terra Cotta series, Spurr, 5184.

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Tintic quartzite, Smith, 5032.

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Tok sandstone, Brooks, 622.

Topeka limestone, Beede, 390.

Topeka limestone, Haworth, 2375.

Torbay slate, Walcott, 5815.

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Toronto formation, Leverett, 3491, 3495.

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Travis Peak formation. Hill and Vaughan, 2556.

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Trenton, Marcou, 3663.

Trenton, Ries, 4622

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Trenton, Winehell and Ulrich, 6337.

Trenton formation, White, 6070.

Trenton limestone, Blatchley and Ashley, 496.

Trenton limestone, Buckley, 655.

Trenton limestone, Calvin and Bain, 720.

Trenton limestone, Clarke, 971.

Trenton limestone, Clarke and Schuchert, 965.

Trenton limestone, Cumings, 1220,

Trenton limestone, Cushing, 1245.

Trenton limestone, Dale, 1256.

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Tully limestone, Clarke, 971.

Tully limestone, Clarke and Schuchert, 965.

Tully limestone, Lincoln, 3512.

Tully limestone, Luther, 3602, 3603.

Turtle Lake moraine, Todd, 5435.

Tuscaloosa, Stanton, 5201.

Tuscaloosa formation, McCalley, 3818.

Tuscarora formation, O'Harra, 4129.

Tuscarora quartzite, Darton, 1335.

Tuscarora formation, Clark, 912.

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Tyee sandstone, Diller, 1508.

Tyee formation, Smith, 5039.

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Uinta formation, Smith, 5039.

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Ulsterian, Clarke and Schuchert, 965, 977.

Umpqua formation, Diller, 1508.

Umpqua formation, Smith, 5039.

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Utica, Marcou, 3663.

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Utica shale, Clarke, 971.

Utica shale, Clarke and Schuchert, 965.

Utica shale, Cumings, 1220.

Utica slate, Cushing, 1245.

Utley metarhyolite, Weidman, 5970.

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Ventura formation, Russell, 4721.

Veraguas formation, Hershey, 2489.

Vicksburg, Harris and Veatch, 2318.

Vilas shale, Haworth, 2375.

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Vulcan formation, Van Hise and Bayley, 5713.

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Wakarusa shale, Beede, 390.

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Waldron shale, Price, 4473.

Wallkill limestone, Wolff and Brooks, 6409,

Walnut formation, Hill and Vaughan, 2556.

Wamsutta group, Shaler, Woodworth, and Foerste, 4940.

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Warrensburg sandstone, Marbut, 3648, 3649.

Wartburg sandstone, Keith, 2965.

Wasatch formation, Smith, 5039.

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Washington limestone, Richardson, 4589.

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Webberville formation, Hill and Vaughan, 2556.

Weber formation, Emmons, 1712.

Weber formation, Spurr, 5175.

Weisner sandstone, McCalley, 3818.

Welch formation, Campbell, 735.

Wellesley formation, Brooks, 622.

Wellesley formation, Peters and Brooks, 4361.

Wellington, Prosser, 4491.

Westerville limestone, Bain, 198.

West Fork series, Schrader, 4834.

Westville formation, Ami, 110.

Weverton formation, Clark, 912.

Wewe slate, Van Hise, 5709.

Wewe slate, Van Hise and Bayley, 5704.

White beds, Dale, 1256.

White limestones, Hill, 2549.

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                                                           (Trigonarca) siouxensis M. and H. Cragin
         Lesquereux, 3470.
      serrulata n. sp., Knowlton, 3255.
                                                           sp., Harris, 2310.
      subemarginata Lesq., Lesquereux, 3470.
                                                       Archægosaurus, Case, 767.
      towneri Lesq. (?), Hollick, 2698.
                                                       Archæobelus vellicatus Cope, Case, 773.
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                                                       Archæocidaris aculeata Shumard, Keyes, 3061
      triloba Newb., Newberry, 4083.
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      wellingtoniana n. sp., Lesquereux, 3470.
                                                           agassizii Hall, Jackson, 2871.
      wellingtoniana Lesq , Newberry, 4080.
                                                           agassizi Hall, Keyes, 3061, 3077.
      whitneyi Lx., Knowlton, 3255.
                                                           biangulata Shumard, Keyes, 3061, 3077.
      wrightii n. sp., Knowlton, 3255.
                                                           cratis White, Keyes, 3077.
   Araucaria spatulata Newb., Newberry, 4083.
                                                           dininnii White, Keyes, 3077.
   Araucarioxylon, Knowlton, 3229.
                                                           drydenensis Vanuxem, Jackson, 2871.
      hoppertonæ Knowlton n sp., Ward, 5856.
                                                           drydenensis (Vanuxem), Keyes, 3077.
      (?) obscurum n. sp., Knowlton, 3260.
                                                           hallianus (Geinitz), Keyes, 3077.
      (?) obscurum Knowlton n. sp., Ward, 5857.
                                                           illinoisensis Worthen and Miller, Keyes,
      virginianum Kn., Knowlton, 3254.
      virginianum Knowiton, Ward, 5857.
                                                           keokuk Hall, Keyes, 3077.
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                                                           legrandensis n. sp., Miller and Gurley,
  Araucarites cuncatus Ward n. sp., Fontaine,
                                                           longispinus Newberry, Keyes, 3077.
      ovatus n. sp., Hollick, 2698.
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      (?) pennsylvanicus Fontaine n. sp., Ward.
                                                           mucronata Meek and Worthen, Keyes,
      reichenbachi Gein, Lesquereux, 3470.
                                                           norwoodi Hall, Keyes, 4077.
      wyomingensis n. sp., Fontaine, 1850.
                                                          ornatus Newberry, Keyes, 3077.
      yorkensis Fontaine n. sp., Ward, 5857.
                                                          shumardiana Hall, Keyes, 3077.
  Area (Linné) Lamarek, Dall, 1272.
                                                          spinoclavatus Worthen and Miller, Keyes,
      aquila Heilprin, Dall, 1272.
                                                           trudifer White, Keyes, 3077.
      arata, Say, 4813
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Archæoerinus Wachsmuth and Springer, Weller, 6002.

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Archæoscyphiaminganensis (Billings) Hinde, Rauff, 4548.

Archelon ischyros, Wieband, 6128, 6136. marshi n. sp., Wieband, 6136.

Archeocyathus profundus, James, 2893. Archeozoon, Dawson, 1448.

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depressa n. sp., Ulrich and Scofield, 5541. instabilis Billings var. incurva, n. var., Ulrich and Scofield, 5541.

perovalis Whitfield sp., Ulrich and Sco-

field, 5541. powersi n. sp., Ulrich and Scofield, 5541.

richmondensis n. sp., Ulrich and Scofield, 5541.

rotunda n. sp., Ulrich and Scofield, 5541. rugatina n. sp., Ulrich and Scofield, 5541. semicarinata u. sp., Ulrich and Scofield, 5541.

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lyelli n. sp., Scudder, 4597.

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Arisæma cretacea n. sp., Lesquereux, 3470. (?) dubia n. sp., Hollick, 2698.

(?) mattewanense n. sp., Hollick, 2698. Aristerella n. gen., Ulrich, 5539.

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Arostichites linnææfolius (Bunbury) Fontaine, Ward, 5857.

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Arthrophycus Hall, James, 2885. harlani, Conrad, Clarke, 976.

Arthropora, Simpson, 4983.

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Arystidictya n. gen., Hall and Clarke, 2269,

elegans n. sp., Hall and Clarke, 2269,

nodifera n. sp., Hall and Clarke, 2269,

Asaphis Modcer, Dall, 1281.

canalis (?) Conrad, Clcland, 1012.

centenaria Conrad, Dall, 1281. convexus?, Cleland, 1012.

diurus Green, Clarke, 935.

gigas De Kay, Whiteaves, 6087.

(Isotelus) susæ Whitfield, Whiteaves, 6087.

Ascoccras costulatum n. sp., Whiteaves, 6083,

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Aspidiophyllum dentatum Lesq., Lesquereux, 3470.

Aspidium fredericksburgense, Dawson, 1434. kennerlyi Newb., Newberry, 4083. virginicum Font., Ward, 5846.

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(? Stearnsia) acuminata n. sp., Cragin, 1115.

Astartella vera Hall, Keyes, 3062.

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Asterias (?) dubium Whitfield, Clark, 892. dubium Whitfield, Logan, 3559.

Asterocarpus falcatus (Emmons) Fontaine, Ward, 5857.

Asterophyllites arkansanus n. nom. White,

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Astrangia expansa n. sp., Vaughan, 5735. harrisi n. sp., Vaughan, 5735. lineata (Conrad), Gane, 1934. ludoviciana n. sp., Vaughan, 5735. wilcoxensis n. sp., Vaughan, 5735.

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Astrohelia burnsi n. sp., Vaughan, 5735. neglecta n. sp., Vaughan, 5735.

Astroporites ottawaensis n. sp., Lambe, 3373. Astylomanon cratera, Rauff, 4548.

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Atænius patescens, Scudder, 4900.

Atelodus neumayri n. sp., Osborn, 4221.

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Athyris McCoy, Hall and Clarke, 2261, 2264. argentea (Shepard) Keyes, 3062, brittsi n. sp., Miller, 3995. coloradoensis n. sp., Girty, 2039.

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vittata Hall, Keyes, 3062.

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Atops, subgen., Matthew, 3789. trilineatus Emmons, Matthew, 3789.

Atresius liratus Gabb, Stanton, 5199. Atrina argentea Conrad, Dall, 1272.

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jacksoniana u. sp., Dall, 1272. rigida Dillwyn, Dall, 1272.

rigida Dillwyn, Dall, 1272. serrata Sowerby, Dall, 1272.

(Argentea?) chipolana n. sp.?, Dall, 1272.

Atrypa Dalman, Grabau, 2086.

Atrypa Dalman, Hall and Clarke, 2261, 2264. gregeri n. sp., Rowley, 4677a. lati-corrugata n. sp., Foerste, 1835. marginalis, Foerste, 1835. missouriensis Miller, Girty, 2038. occidentalis Hall, Keyes, 3062. reticularis Linné, Girty, 2038. reticularis (Linnæus), Grabau, 2086. reticularis (Linnæus), Keyes, 3062. spinosa Hall, Grabau, 2086.

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(Acrostemma) gracilis 11. sp., Dall, 1269.

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Aulacopella winnipegensis Rauff, Whiteaves, 6087.

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Auloeopina granti, Walker, 5820.

Aulocrinus agassizi, Springer, 5163.

Aulonotreta Kurtoga, Hall and Clarke, 2260. Aulopora, Girty, 2032.

Aulopora Goldfuss, Grabau, 2086. anna n. sp., Beede, 386.

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graeilis n. sp., Keyes, 3061.

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Aulosteges von Helmersen, Hall and Clarke, 2260.

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longa (Gennitz), Keyes, 3062. maeronotus Meek, Logan, 3559.

singleyi n. sp., Cragin, 1115.

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whitheldi, Foerste, 1835. whiteavesi Stanton, Whiteaves, 6095.

wyomingensis n. sp., Stanton, 5206. (Oxytoma) whiteavesi n. sp., Stanton, 5199.

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                                                      Genera and species described—Continued.
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         Lanc, 3400.
       batesvillensis II. sp., Weller, 5986.
       cardoniferus (Stevens), Keyes, 3062.
       caroli Win., Weller, 6006.
       (?) equilatera, Whitfield, 6099.
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       fasciculatus Keyes, Keyes, 3062.
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       ?interlineatus Meek and Worthen, Keyes,
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Barroisella n. gcn., Hall and Clarke, 2260.

Barycrinus elrodi n. sp., Miller and Gurley,

expansus n. sp., Miller and Gurley, 3997c. formosus n. sp., Miller and Gurley, 3997a. hoveyi (Hall), Keyes, 3061.

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neglectus n. sp., Miller and Gurley, 4000. princeps n. sp., Miller and Gurley, 3991.

samsoni n. sp., Miller and Gurley, 4001. sculptilis, Whitfield, 6098.

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Bathyuriscus Meek, Matthew, 3788.

Bathyuriseus Meek?, Walcott, 5816.

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Batocrinus Casseday, Wachsmuth and Springer, 5765a.

adamsensis n. sp., Miller and Gurley, 3999.

æquabilis n. sp., Miller and Gurley, 3997a. æqualis (Hall), Keyes, 3061.

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æquibrachiatus var. alatus, Whitfield, 6098

affinis n. sp., Miller and Gurley, 4001.

agnatus n. sp., Miller, 3992.

albersi n. sp., Miller and Gurley, 4001,

altiuseulus n. sp., Miller and Gurley, 3997a. approximatus n. sp., Miller and Gurley, 4001.

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asper n. sp., Miller and Gurley, 3999. asperatus n. sp., Miller and Gurley, 3999. aspratilis n. sp., Miller and Gurley, 3997a. basilieus n. sp., Miller and Gurley, 3999.

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blairi n. sp., Miller, 3995.

boonvillensis n. sp., Miller, 3992.

brittsi n. sp., Miller, 3995.

broadheadin.sp., Miller and Gurley, 3998. burketi n. sp., Miller and Gurley, 3997d.

calvini Rowley, Keyes, 3061.

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eantonensis M. and G., Wachsmuth and Springer, 5765a.

cantonensis n. sp., Miller and Gurley, 3991. casualis n. sp., Miller and Gurley, 3997d. easula n. sp., Miller and Gurley, 3997d.

eistula n. sp., Miller and Gurley, 3999. elypeatus (Hall), Waehsmuth and Springer, 5765a.

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eomplanutus n. sp., Miller and Gurley,

consanguineus n. sp., Miller and Gurley,

copiosus n. sp., Miller and Gurley, 3997c.

crawfordsvillensis n. sp., Miller, 3992. curiosus n. sp., Miller and Gurley, 3997d

decorus n. sp., Miller, 3992. deerepitus n. sp., Miller, 3995.

delicatulus n. sp., Miller and Gurley, 4000.

discoidens, Whitfield, 6098. divalis n. sp., Miller, 3995.

douglassi n. sp., Milter and Gurley, 4003.

enodatus n. sp., Miller and Gurley, 4001. enodis n. sp., Miller and Gurley, 4001.

faberi n. sp., Miller and Gurley, 4000.

facetus II. sp., Miller and Gurley, 3991. folliculus n. sp., Miller and Gurley, 3999.

formaceus n. sp., Miller and Gurley, 3998. genista n. sp., Miller and Gurley, 3991.

germanus, n. sp., Miller and Gurley, 3999. glaber n. sp., Miller and Gurley, 4001. gorbyi n. sp., Miller, 3992.

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icosidactylus Casseday, Miller, 3995. icosidactylus Casseday, Wachsmuth and

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imparilis n. sp., Miller and Gurley, 3998. inopinatus n. sp., Miller and Gurley, 3998.

inornatus, Whitfield, 6098, insolens n. sp., Miller and Gurley, 4001.

insperatus n. sp., Miller and Gurley, 3998. insuetus n. sp., Miller and Gurley, 3998. irregularis Casseday, Miller, 3995.

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levigatus n. sp., Miller and Gurley, 4001. levis n. sp., Miller and Gurley, 4001. longirostris (Hall), Keyes, 3061.

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marinus n. sp., Miller and Gurley, 3991. mediocris n. sp., Miller, 3992.

modestus n. sp., Miller and Gurley, 3998. modulus n. sp., Miller and Gurley, 3999. mundulus (Hall), Wachsmuth and Springer, 5765a.

nanus n. sp., Miller and Gurley, 3999. nashvillæ (Troost), Keyes, 3061. niteus n. sp., Miller and Gurley, 4000. nitidulus n. sp., Miller and Gurley, 3998. nodolusus n. sp., Miller and Gurley, 4000. nodosarius n. sp., Miller and Gurley, 4001. nodosus n. sp., Miller and Gurley, 4001. oblatus, Whitfield, 6098.

parilis n. sp., Miller and Gurley, 4000. peculiaris n. sp., Miller and Gurley, 3998. pettisensis n. sp., Miller and Gurley, 4000. pileus n. sp., Miller and Gurley, 3997d. pistillus (M. and W.), Wachsmuth and Springer, 5765a.

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poculum n. sp., Miller and Gurley, 3991. politus n. sp., Miller and Gurley, 4001. polydactylus n. sp., Miller and Gurley,

procerus n. sp., Miller and Gurley, 3998. prodigialis n. sp., Miller and Gurley, 3998. proximus n. sp., Miller and Gurley, 3999. pulchellus n. sp., Miller, 3992. pyriformis (Shumard), Keyes, 3061.

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reliquus n. sp., Miller and Gurley, 4003,
remotus n. sp., Miller and Gurley, 4001.
reportus n. sp., Miller and Gurley, 4001.
repositus n. sp., Miller and Gurley, 4001.
reservatus n. sp., Miller and Gurley, 4003.
rotadentatus Rowley and Hare, Wachs-

muth and Springer, 5765a.

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Batocrinus rotuliformis n. sp., Miller and Gurley, 4003.

rotundus (Yandell and Shumard), Keyes, 3061.

rudis n. sp., Miller and Gurley, 4001. rusticellus n. sp., Miller and Gurley, 4003. (?) rusticus n. sp., Miller and Gurley, 4003. saccellus n. sp., Miller and Gurley, 4001. sacculus n. sp., Miller and Gurley, 3997c. sagetownensis n. sp., Miller and Gurley, 4001.

salemensis n. sp., Miller and Gurley, 4001. sampsoni n. sp., Miller and Gurley, 3998. scitulus n. sp., Miller and Gurley, 4003. scopæ n. sp., Miller and Gurley, 3991. scyphus n. sp., Miller and Gurley, 3997a. sedaliensis n. sp., Miller and Gurley, 4001. selectus n. sp., Miller and Gurley, 4001. senex n. sp., Miller and Gurley, 4003. serratus n. sp., Miller and Gurley, 3998. sharonensis n. sp., Miller and Gurley, 4003. shepardi n. sp., Rowley, 4673. signatus n. sp., Miller and Gurley, 4000. solitarius n. sp., Miller and Gurley, 3999. spartarius n. sp., Miller and Gurley, 3991. speciosus n. sp., Miller and Gurley, 4001. spergenensis n. sp., Miller, 3992. spinosus n. sp., Miller and Gurley, 3997d. (?) springeri n. sp., Rowley, 4677. spurius n. sp., Miller and Gurley, 4000. stelliformis n. sp., Miller and Gurley,

strenuus n. sp., Miller and Gurley, 4000. subæqualis (McChesney), Wachsmuth and Springer, 5765a.

and springer, 3765a.
subæquatus n. sp., Miller and Gurley, 4001.
sublevis n. sp., Miller and Gurley, 4001.
subovatus n. sp., Miller and Gurley, 4001.
subrotundus n. sp., Miller and Gurley, 4001.
subscitulus n. sp., Miller and Gurley, 4001.
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undulata James, 2881. Beecheria Hall, Hall and Clarke, 2264.

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Belemnacanthus giganteus n. sp., Eastman,

Belemnitella americana, Whitfield, 6097. baculus n. sp., Logan, 3554.

Belemnites (?) ambiguus, Whitfield, 6097. assimilis n. sp., Whiteaves, 6095a.

curtus n. sp., Logan, 3559. densus Meek, Logan, 3559.

densus, Marsh, 3695.

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tehamaensis n. sp., Stanton, 5199.

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branneri II. sp., Weller, 5986.

calcifer, n. sp., Cleland, 1012.

capax n. sp., Ulrich and Scofield, 5541. cincinnationsis n. sp., Miller and Faber,

clausus n. sp., Ulrich and Scofield, 5541. crassus Meek and Worthen, Keyes, 3062. galericulatus, Win., Lane, 3400.

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var. burginensis n. var., Ulrich and Scofield, 5541.

urii Fleming, Keves, 3062.

vinculatus W. & W., Weller, 6006.

(Bucania) opertus n. sp., Foerste, 1835. sp. ?, Clarke, 971.

sp., Girty, 2039.

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superciliosus Cope n. sp., Cope, 1087.

Beltina n. gen., Walcott, 5815.

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obductum n. sp., Scudder, 4900. tumulorum n. sp., Scudder, 4900.

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Benzoin dilleri n. sp., Knowlton, 3262. Berberis simplex Newb., Newberry, 4083. Berenicea, Simpson, 4983.

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   Beyrichia McCoy, Ulrich, 5540.
       hamiltonensis Jones, Grabau, 2086.
       hammelli n. sp., Miller and Faber, 3997.
       initialis n. sp., Ulrich, 5540.
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(2) primæva n. sp., Matthew, 3781.
tricollina Ulrich, Grabau, 2086.
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ovata n. sp., Matthew, 3761.
papilio, Matthew, 3761.
planata n. sp., Matthew, 3761.
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Bilobites Linné. Hall and Clarke, 2260. Bison, Middleton and Moore, 3981.

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sp. ?, Rhoads, 4586.

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Blairocrinus arrosus n. sp., Miller, 3995. bullatus n. sp., Miller, 3995. spinosulus n. sp., Miller and Gurley, 3997a.

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Botryocrinus Angelin, Weller, 6002.

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repressus n. sp., Scudder, 4900. Braehyphyllum crassum n. sp., Lesquereux, 3470.

crassum Lesq., Newberry, 4089.

macrocarpum Newb., Knowlton, 3264. texense n. sp., Fontaine, 1846, 1847.

yorkense Fontaine n. sp., Ward, 5857.

Brachyprion majus, n. sp., Clarke, 971. schuehertanum, n. sp., Clarke, 971.

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Branchipus stagnalis, Beecher, 366.

Branta propinqua n. sp., Shufeldt, 4960.

Brasenia (?) antiqua Newb., Newberry, 4083.

Brittsia n. gen., White, 6050.

problematica n. sp., White, 6050.

Bromelis? tenuifolia n. sp., Lesquereux, 3470. Bronteus lunatus Billings, 1854, Clarke, 952.

manitobensis n. sp., Whiteaves, 6096.

senescens Clarke, Clarke, 959. Brontichthys, clarki n. gen., Chaypole, 994.

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freitasi n. sp., Clarke, 976.

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micronema n. sp., Ulrich and Scofield,

minnesotensis n. sp., Ulrich and Scofield,

nana u. sp., Ulrich and Scofield, 5541.

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(?) persulcata n. sp., Stanton, 5199.

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(Cuneocorbula) alabamiensis Lea, Dall,

aldrichi Meyer, Dall, 1272,

barrattiana C. B. Adams, Dall, 1272.

compressa Lea, Dall, 1272.

contracta Say, Dall, 1272.

cuneata Say, Dall, 1272.

densata Conrad, Dall, 1272,

inæqualis Say, Dall, 1272.

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becraftensis n. sp., Clarke, 971.

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ovatus Lx., White, 6050.

Cordiera gracillima n. sp., Cooper, 1071.

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Cremastorhynchus stabilis, Scudder, 4890.

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Crepicephalus Owen, Walcott, 5816. texanus, Shumard sp., Walcott, 5816.

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Cyrtocerina (?) sehoolerafti n. sp., Clarke, 953. Cyrtoclymenia neapolitana Clarke, Clarke, 960.

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Cyrtospira n. gen., Ulrich and Scoffeld, 5541. bicurvata n. sp., Ulrich and Scoffeld, 5541. tortilis n. sp., Ulrich and Scoffeld, 5541. wykoffensis n. sp., Ulrich and Scoffeld.

Cyryoceras (?) sp., Clarke, 976. Cystelasma lanesvillense n. gen. et sp., Miller, 3992.

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Cystodietya Simpson, 4983. divisa n. sp., Rogers, 4656. inequimarginata n. sp., Rogers, 4656. sp., Herriek and Bendrat, 2464.

Cystopora, Simpson, 4983.

Cythera crassimarginata, Lane, 3400. gibba n. sp., Guppy and Dall, 2214. guppyi n. sp., Guppy and Dall, 2214. monticula, n. sp., Jones, 2934. mucronata n. sp., Guppy and Dall, 2214. obtusa n. sp., Guppy and Dall, 2214. terminula n. sp., Dall, 1259.

Cytherea arata Gabb, Whiteaves, 6085. eoneentrica, Say, 4813. convexa, Say, 4813. eversa Conrad, Clark, 906. lamarensis Shum, Cragin, 1115. leveretti n. sp., Cragin, 1115. newcombei, n. sp., Merriam, 3919, 3923. ovata Rogers, Clark, 906. subimpressa Conrad, Clark, 906.

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Daonella bochiformis n. sp., Hyatt, 2818.

cardinoides n. sp., Hyatt, 2818. Daonella subjecta (?), Hyatt, 2818.

Daphnella eingulata n. sp., Dall, 1259.

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Genera and species described—Continued.

Dendrophyllia lisbonensis, n. sp., Vaughan,

Dendrophyllia striata, n. sp., Vaughan, 5735.

Dentalium attenuatum, Say, 4813.

Daphnella elata Dall, Dall, 1259. Cytherea taffi n. sp., Cragin, 1115. modesta n. sp., Dall, 1259. vancouverensis n. sp., Merriam, 3919, 3923. Cytherella Jones and Bosquet, Ulrich, 5540. Daphnia longispina, Beecher, 366. erucifera n. sp., Jones, T. R., 2935. Daphnogene kanii (?) Heer, Hollick, 2708. Daphnophyllum angustifolium n. sp., Les-(?) rugosa Jones, Ulrieh, 5540. var. areta n. var., Ulrieh, 5540. quereux, 3470, (?) subrotunda n. sp., Ulrich, 5540. dakotense n. sp., Lesquereux, 3470. Cytheridea tenuis n. sp., Jones, 2934. Daptimus broadheadi n. sp., Stewart, 5237. Darina Gray, Dall, 1272. truneata n. sp., Jones, 2934. tyrrellii n. sp., Jones, T. R., 2935. Davidsonella Munier-Chalmas, Hall and Clarke, 2264. Cytherideis æqualis n. sp., Jones, 2934. impressa n. sp., Jones, 2934. Davidsonia Bouchard, Hall and Clarke, 2260. Cytilus tartarinus n. sp., Scudder, 4900. Daviesiella Waagen, Hall and Clarke, 2260. Cyttaromyia, Scudder, 4894. Davila Gray, Dall, 1272. Dawsonia, James, 2881. caneellata, Scudder, 4894. clathrata, Scudder, 4894. monodon n. sp., Gurley, 2217. oligocena, Scudder, 4894. silquaria, James, 2881. princetoniana, Scudder, 4894. tridens n. sp., Gurley, 2217. Czekanowskia capilaris n. sp., Newberry, Dawsonites n. gen., Scudder, 4889. veter n. sp., Scudder, 4889. 4080. nervosa Heer, Fontaine, 1850. Dayia Davidson, Hall and Clarke, 2261, 2264. Dactylodus N. and W., Newberry, 4082. Deeadoerinus grandis, Springer, 5163. tumidulus, Springer, 5163. latus n. sp., Newberry, 4082. princeps N. and W., Newberry, 4082. Deinodon Leidy, Hay, 2384. reetus n. sp., Newberry, 4082. Dekayella, Simpson, 4983. Dactyloidites asteroides Fitch, Walcott, 5811. Dekayella Ulrich, Ulrich, 5537. Dactyloporus archæus, Herzer, 2501. prænuntia n, sp., Ulrich, 5537. Daemonelix, Barbour, 231. var. echinata n. var., Ulrich, 5537. anaxilis, Barbour, 230. var. multipora n. var., Ulrich, 5537. bispiralis, Barbour, 230. var. nævigera n. var., Ulrich, 5537. earinati, Barbour, 230. var. simplex n. var., Ulrich, 5537. eireumaxilis, Barbour, 230. Dekayia, Simpson, 4983. eireumaxilis, James, 2894. Dekayia Edwards and Haime, Ulrich, 5537. robusta, Barbour, 230. trentonensis Ulrich, Ulrich, 5537. Dakbergia apieulata n. sp., Newberry, 4080. Deloerinus n. gen., Miller and Gurley, 3991. Dallina Beecher, Hall and Clarke, 2264. hemisphericus Shumard, Miller and Gur-Dalmanella, Hall and Clarke, 2260. lev, 3991. holiensis, n. sp., Cleland, 1012. missouriensis n. sp., Miller and Gurley, perelegans Hall, Clarke, 971. subcarinata Hall, Girty, 2037. Deltatherium fundaminis Cope, Osborn and (Orthis) wemplei, n. sp., Cleland, 1012. Earle, 4191. Dalmanites aehates Billings, 1860, Clarke, Deltoceras n. gen., Hyatt, 2819. planum n. sp., Hyatt, 2819. Deltodus complanatus N. and W., Newberry, bisignatus n. sp., Clarke, 971. hausmanni, Beecher, 366. phacoptyx Hall and Clarke, Clarke, 971. grandis N. and W., Newberry, 4082. pleuroptyx (Green), Girty, 2037. inornatus n. sp., Newberry, 4082. socialis, Beecher, 366. planidens n. sp., Cope, 1093. tridentifera (Shumard), Keyes, 3061. spatulatus N. and W., Newberry, 4082. werthneri, Foerste, 1835. Dendraeis cantabridgiensis n. sp., Vaughan, (Synphoria) stemmatus n. sp., Clarke, 971. 5734 var. convergens n. var., Clarke, 971. tubulata (Lonsdale), Vaughan, 5735. Dammara borealis Heer, Newberry, 4080. Dendroclonella n. gen., Rauff, 4549. Dammara (?) eliffwoodensis n. sp., Hollick, rugosa n. sp., Rauff, 4549. 2698.Dendrograptus, James, 2881. microlepis Heer, (?) Holliek, 2696. graeillimum, James, 2881. Dammarites eaudatus Lesq., Lesquereux, cf. serpens Hopkinson, Gurley, 2217. 3470 tenuiramosus, James, 2881. dubius n. sp., Dawson, 1436. unilateralis n. sp., Gurley, 2217. emarginatus Lesq., Lesquereux, 3470. Dendrophycus shoemakeri Ward n. sp., Ward, Danæopsis? sp., Fontaine, Ward, 5857. 5857.

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(Falcula) falcatum, Whitfield, 6097. Derbya Waagen, Hall and Clarke, 2260. affinis n. sp., Hall and Clarke, 2260. bennetti n. sp., Hall and Clarke, 2261, 2268, biloba n. sp., Hall and Clarke, 2260, 2268, broadheadi n. sp., Hall and Clarke, 2260,

costatula n. sp., Hall and Clarke, 2260, 2268

crassa, Lane, 3400.

cymbula n. sp., Hall and Clarke, 2260, 2268. keokuk Hall (?), Girty, 2038. ruginosa n. sp., Hall and Clarke, 2260,

9968 Desmatochelys lowii en. gen. et sp., Williston,

lowii, Williston, 6245.

Desmoceras affine n. sp., Whiteaves, 6073. var. glabrum, Whiteaves, 6073. athabaseense n. sp., Whitaves, 6073, breweri, Whiteaves, 6095a. californicum n. sp., Stanton, 5199. dawsoni n. sp., Whiteaves, 6095a. haydenii, Whiteaves, 6095a. latidorsatum Michelin, Whiteaves, 6095a. maudense, Whiteaves, 6095a. perezianum, Whiteaves, 6095a.

planulatum? Whiteaves, 6095a.

Desmograptus devonicus n. sp., Gurley, 2217. macrodictyum n. sp., Gurley, 2217. 🗸 Desmophyllum willcoxi n. sp., Gane, 1934.

Deuterosaurus, Case, 768.

Devallia? montana n. sp., Knowlton, 3255. Dewalquea dakotensis n. sp., Lesquereux, 3470. groenlandiea Heer (?), Hollick, 2696. grönlandica Heer (?), Newberry, 4080. primordalis n. sp., Lesquereux, 3472. trifoliata n. sp., Newberry, 4080.

Diadactes, Case, 768.

Diademodon, Case, 768.

Diamesopora, Simpson, 4983.

Diamesopora Hall, Ulrich, 5537. trentonensis n. sp., Ulrich, 5537.

Dianulites, Simpson, 4983.

Diaphorostoma? agassizi, n. sp., Clarke, 976. darwini, n. sp., Clarke, 976. desmatum n. sp., Clarke, 971.

furmanianum, Hartt and Rathbun (sp.), Clarke, 976.

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Genera and species described—Continued. Diaphorostoma ventricosum Conrad, Clarke,

Diastoporina, Simpson, 4983.

Diastoporina Ulrich, Ulrich, 5537. flabellata Ulrich, Ulrich, 5537.

Diatomaceæ, Edwards, 1616.

Diatomaceæ, Elmore, 1664.

Diatoms, Boyer, 517.

Dibelodon humboldtii Cuvier, Cope, 1087. præcursor Cope, Cope, 1087.

tropicus Cope, Cope, 1087.

Dicamara Hall, Hall and Clarke, 2264.

Dicellocephalus, Owen, Berkey, 429. misa Hall, Berkey, 429.

Dicellograpsus gurleyi Lapworth n. sp., Gurintortus var. polythecatus n. var., Gurley,

Dicellomus Hall, Walcott, 5816.

namus M. and H. sp., Walcott, 5816. Diceratherium, Hatcher, 2334.

douvillei n. sp., Osborn, 4221.

proavitum, Hatcher, 2338,

Dichocoenia alabamensis n.sp., Vaughan, 5735. Dichocrinus Münster, Wachsmuth and Springer, 5765a.

angustus White, Wachsmuth and Springer, 5765a.

blairi Miller, Keyes, 3061.

blairi II. sp., Miller, 3992.

blairi S. A. Miller, Wachsmuth and Springer, 5765a.

bozemanensis n. sp., Miller and Gurley,

cinetus Miller and Gurley, Wachsmuth and Springer, 5765a.

cinctus n. sp., Miller and Gurley, 3991.

conus Meek and Worthen, Wachsmuth and Springer, 5765a.

eoxams Worthen, Wachsmuth and Springer, 5765a.

crassitestus White, Wachsmuth and Springer, 5765a.

delicatus W. and Sp. (nov. spec.), Wachsmuth and Springer, 5765a.

dichotomus Hall, Wachsmuth and Springer, 5765a.

fieus Cass, and Lyon, Wachsmuth and Springer, 5765a.

ficus Casseday and Lyon, Keyes, 3061.

hamiltonensis Worthen, Wachsmuth and Springer, 5765a.

humbergi, Miller, 3992.

humburgi S. A. Miller, Wachsmuth and Springer, 5765a.

huntsvillae W. and Sp. (nov. spec.), Wachsmuth and Springer, 5765a.

inornatus W. and Sp., Wachsmuth and Springer, 5765a.

lachrymosus Hall, Wachsmuth and Springer, 5765a.

laevis Hall, Wachsmuth and Springer,

lineatus Meek and Worthen, Wachsmuth and Springer, 5765a.

Genera and species described—Continued.

Dichocrinus liratus Hall, Wachsmuth and Springer, 5765a.

oblongus W. and Sp. (nov. spec.), Wachsmuth and Springer, 5765a.

ornatus W. and Sp., Wachsmuth and Springer, 5765a. ovatus O. and Shum., Wachsmuth and

Springer, 5765a. parvulus S. A. Miller, Wachsmuth and

Springer, 5765a. pendens W. and Sp. (nov. spec.), Wachs-

muth and Springer, 5765a. pentalobus (Cass. and Lyons), Wachs-

muth and Springer, 5765a. pisum Meek and Worthen, Wachsmuth

and Springer, 5765a. plicatus Hall, Wachsmuth and Springer,

5765a. polydactylus Casseday and Lyon, Wachs-

muth and Springer, 5765a. scitulus Hall, Wachsmuth and Springer, 5765a.

striatus O. and Shum., Wachsmuth and Springer, 5765a.

striatus Owen and Shumard, Keyes,

superstes W. and Sp. (nov. spec.), Wachsmuth and Springer, 5765a.

ulrichi Miller and Gurley, Wachsmuth and Springer, 5765a.

ulrichi n. sp., Miller and Gurley, 3991.

Dichograptus logani Hall, Matthew, 3746. nitidus (Hall), var., Matthew, 3746. ramosus, James, 2881.

Dichograpsus remotus n. sp., Gurley, 2217.

Dicolocapsa, Matthew, G. F., 3760.

Dicranella n. gen., Ulrich, 5540.

bicornis n. sp., Ulrich, 5540.

marginata n. sp., Ulrich, 5540.

(?) simplex n. sp., Ulrich, 5540.

spinosa n. sp., Ulrich, 5540.

Dicranograptus, James, 2881.

Dicranograptus furcatus (Hall), Gurley, 2217. nicholsoni var. diapason n. var., Gurley,

nicholsoni var. parvangulus Gurley, Gurley, 2217.

Dicranomyia fontainei, Scudder, 4894.

fragilis, Scudder, 4894.

inferna, Scudder, 4894.

longipes, Scudder, 4894.

primitiva, Scudder, 4894.

rostrata, Scudder, 4894.

stagnorum, Scudder, 4894.

stigmosa, Scudder, 4894.

Dicranophyllum? sp., White, 6050.

Dicranopora, Simpson, 4983.

parva n. sp., Ami, 79.

Dictyocephalus, Matthew, G. F., 3760.

Dictyonema, James, 2881.

actinotum n. sp., Gurley, 2217.

arbusculum, James, 2881.

blairi n. sp., Gurley, 2217.

erassum n. sp., Girty, 2034.

delicatulum Dawson, var., Matthew, 3746.

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Dictyonema, flambelliforme Eichwald, Matthew, G. F., 3762.

cí. neenah Hall, Gurley, 2217. neenah, Whitfield, 6102.

perexile n. sp., Gurley, 2217.

cf. splendens Billings, Clarke, 971.

Dictyophytra(?) walcotti n. sp., Rauff, 4548. Dictyopteris carrii (Lx.), White, 6049.

gilkersonensis D. W., White, 6049. squarrosa Ett. sp., White, 6040.

Dietyorhabdus priscus n. gen. et sp., Walcott,

Dictiospongia n. gen., Hall and Clarke, 2269, 2270

almondensis n. sp., Hall and Clarke, 2269,

(?) bacteria n. sp., Hall and Clarke, 2269,

charia n. sp., Hall and Clarke, 2269, 2270. cylindrica Whitfield(sp.), Hall and Clarke, 2269, 2271.

eumorphia n. sp., Hall and Clarke, 2269.

haplea 11. sp., Hall and Clarke, 2269, 2270. lophura n. sp., Hall and Clarke, 2269, 2270. (?) marcellia Clarke (sp.), Hall and Clarke, 2269, 2270.

morini Barrois (sp.), Hall and Clarke, 2269, 2270.

sceptrum Hall (sp.), Hall and Clarke, 2269,

siræa n. sp., Hall and Clarke, 2269, 2270. (?)stylina n. sp., Hall and Clarke, 2269, 2270. (Mastodictya) osculada n. sp., Hall and Clarke, 2269, 2770.

Dicynodon, Case, 768.

Didymictis Cope, Osborn, 4183.

haydenianus Cope, Matthew, 3801.

protenus varaltidens Cope, Osborn, 4193a.

Didymoceras n. gen., Hyatt, 2819. nebrascense, Hyatt, 2819.

Didymograptus bipunctatus n. sp., Gurley, 2217.

convexus n. sp., Gurley, 2217.

hirundo Salter, Gurley, 2217. perflexus n. sp., Gurley, 2217.

sagitticaulis n. sp., Gurley, 2217.

Didymosorus? bindrabunensis acutifolius Fontaine, Ward, 5857.

Dielasma King, Grabau, 2086.

Dielasma King, Hall and Clarke, 2261a, 2264. obovatum, Hall and Clarke, 2268. turgida, Beecher and Schuchert, 358. turgida Hall var. elongata n. var., Weller, 5986.

utah Hall and Whitfield, Girty, 2038. (Cranæna) romingeri Hall, Grabau, 2086. (Cranæna Hall), Hall and Clarke, 2264. sp.?, Weller, 5994.

Dielasmina Waagen, Hall and Clarke, 2261a,

Digonioceras n. gen., Hyatt, 2819. rotundum n. sp., Hyatt, 2819.

Dillwynella naticoides Lea, Dall, 1259. ? texana n. sp., Harris, 2307.

Genera and species described-Continued. Dilobella n. gen., Ulrich, 5540.

tyra n. sp., Ulrich, 5540.

Dimerella Zittel, Hall and Clarke, 2264.

Dimetrodon Cope, Baur and Case, 300. incisivus Cope, Case, 763.

Dimorphodon, Case, 768.

Dimya grandis Dall, Dall, 1272.

grandis n. sp., Guppy and Dall, 2214.

Dinarella Bittner, Hall and Clarke, 2264. Dinichthys, Claypole, 980, 990.

Dinichthys, Dean, 1469, 1473.

Dinichthys, Eastman, 1597, 1605.

Dinichthys, Wright, 6499, 6500.

canadensis n sp., Whiteaves, 6096.

clarki, Claypole, 988.

clarki Claypole, Eastman, 1608.

gouldi Newberry, Dean, 1472. gracilis, Claypole, 988.

halmodeus (Clarke), Eastman, 1608. herzeri Newb., Eastman, 1608.

intermedius Newberry, Eastman, 1602.

kepleri n. sp., Claypole, 1004.

lincolni, Claypole, 988.

prentis-clarki, Claypole, 1003. pustuosus, Eastman, 1602, 1608.

terrelli Newberry, Dean, 1472.

terrelli Newberry, Eastman, 1602. Dinietis major n. sp., Lucas, 3584.

paucidens, Riggs, 4640. ? sp., Williston, 6228.

Dinobastis serus n. sp., Cope, 1095.

Dinobolus Hall, Hall and Clarke, 2260.

? parvus Whitfield, Winchell and Schuchert, 6319.

Dinornis, Case, 769.

Dinorthis, Hall and Clarke, 2260.

Dinosauria, Marsh, 3695.

Dinotomius atrox n. gen. et sp., Williston,

Dione marylandica, Whitfield, 6101.

savana Conrad, Whitfield, 6101. Dioonites buchianus Schimper, Fontaine,

buchianus var. angustifolius Font., Fon-

taine, 1846. buchianus var. rarinervis 11. var., Fontaine, 1846, 1847.

carnallianus (Göppert) Bornemann, Ward, 5857.

dunkerianus (Göpp.) Miquel, Fontaine, 1846, 1847.

Dioristella Bittuer, Hall and Clarke, 2264.

Diorugoceras n. gen., Hyatt, 2816. Diospyros apiculata n. sp., Lesquereux, 3470. branchysepala Al. Br., Knowlton, 3264. calyx Dawson, 1436.

celastroides n. sp., Lesquereux, 3470. cuspidata n. sp., Kirchner, 3187.

eminens n. sp., Dawson, 1436. haguei n. sp., Knowlton, 3255.

lamarensis n. sp., Knowlton, 3255.

primæva Heer, Lesquereux, 3470. primæva Heer, Newberry, 4080.

pseudoanceps n. sp., Lesquereux, 3470,

3472.

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Genera and species described—Continued. Diospyros rotundifolia Lesq., Lesquereux,

steenstrupi Heer, Lesquereux, 3470. vancouverensis Dn., Dawson, 1436.

Dipeltinæ n. subfam., Schuchert, 4850.

Dipeltis Packard (emend), Schuchert, 4850,

carri n. sp., Schuehert, 4850.

diplodiscus Packard, Schuchert, 4850. Diphyphyllum adjunctum, n. sp., Greene, 2162e

cæspitosum Hall sp., Lambe, 3375. expansum, n. sp., Greene, 2162b. laxum, n. sp., Greene, 2162c.

multicaule Hall sp., Lambe, 3375. prolatum, n. sp., Greene, 2162c.

simcoense Billings sp., Lambe, 3375. stokesi Edwards and Haime, Whiteaves,

unieum, n. sp., Greene, 2162. wadsworthi, n. sp., Greene, 2162c.

Diplacanthus horridus n. sp., Woodward,

Diplitrypa Nicholson, Ulrich, 5537. limitaris n. sp., Ulrich, 5537. neglecta n. sp., Ulrich, 5537.

Diplocaulus limbatus n. sp., Cope, 1097. magnicornis Cope, Cope, 1097. salamandroides Cope, Case, 773,

Diploconcha (Serpula?) cretacea?, Whitfield,

Diplodocus, Case, 768.

Diplodocus Marsh, 3701, 3702. longus, Osborn, 4213.

Diplodonta Brown, Dall, 1281. acclinis Conrad, Dall, 1281. alta Dall, Dall, 1281. caloosaensis n. sp., Dall, 1281.

hopkinsensis Clark, Clark, 904, 906. hopkinsensis Clark, Dall, 1281.

inflata Lea, Dall, 1281. leana Dall, Dall, 1281.

nucleiformis Wagner, Dall, 1281.

punetata Say, Dall, 1281. radiata n. sp., Dall, 1281.

shilohensis Dall, Dall, 1281.

soror C. B. Adams, Dall, 1281. turgida Conrad, Dall, 1281.

ungulina Conrad, Dall, 1281.

yorkensis n. sp., Dall, 1281. (Felaniella) minor n. sp., Dall, 1281.

(Phlyetiderma) punctulata H. C. Lea, Dall, 1281.

semiaspera Philippi, Dall, 1281. (Phlyctiderma) puncturella n. sp., Dall,

(Sphærella) subvexa (Conrad), Dall, 1281. sp., Harris, 2313.

Diplodus politus Newberry, Eastman, 1604. priscus n. sp., Eastman, 1604.

striatus n. sp., Eastman, 1604.

Diplograptus, James, 2881. Diplograptus McCoy, Ruedemann, 4688.

pristiniformis, Ruedemann, 4681. pristis, Rucdemann, 4681, 4688. pristis? (Hisinger) Hall, Winchell and

Schuchert, 6318.

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Diplograptus putillus Hall, Winchell and Schuchert, 6318.

ruedemanni Gurley, Ruedemann, 4688. spinulosus, James, 2881.

typicalis Hall, Winchell and Schuchert,

whitfieldi, James, 2881.

Diplograpsis stenosus n. sp., Gurley, 2217.

Diplopodia hilli Clark, Clark, 892.

hilli Clark, Cragin, 1115.

streeruwitzii n. sp., Cragin, 1115.

taffi n. sp., Cragin, 1115.

texana Roem., Cragin, 1115.

texanum (Roemer), Clark, 892.

Diplopora, Simpson, 4983.

Diploria Milne-Edwards and Haime, Vaughan,

conferticostata n. sp., Vaughan, 5734.

var. columnaria n. var., Vaughan, 5734. Diplosaurus nanus, Marsh, 3695.

Diplospirella Bittner, Hall and Clarke, 2264. Diplotheca acadica, var. crassa, Matthew, 3761.

hyattiana, Matthew, \$761, Diplothemema geniculatum (Germ, et Kaulf.)

Stur., White, 6040. Diplotrypa quebecensis n. sp., Ami, 79.

Diplurus, Case, 766.

Dipnoi Case, 766.

Dipterus calvinin n. sp., Eastman, 1608.

calvini Eastman, Udden, 5519.

contraversus, Hay, 2381.

costatus n. sp., Eastman, 1608.

mordax n. sp., Eastman, 1608.

uddeni n. sp., Eastman, 1608.

Diptychoceras, Hyatt, 2819.

Discina Lamarck, Hall and Clarke, 2260.

convexa Shumard, Keyes, 3062.

fletcheri n. sp., Ami, 88.

humilis, Whitfield, 6099.

illinoisensis n. sp., Miller and Gurley,

lodensis, Whitfield, 6099.

lugubris, Whitfield, 6099.

meekana, Whitfield, 6099.

minuta, Whitfield, 6099.

munda n. sp., Miller and Gurley, 3997a.

nitida (Phillips), Keyes, 3062.

nova-scotica n. sp., Ami, 88.

orientalis n. sp., Ami, 88.

sampsoni n. sp., Miller, 3992.

Discinisca Dall, Hall and Clarke, 2260.

Discinolepis Waagen, Hall and Clarke, 2260.

Discinopsis (Matthew) n. gen., Hall and Clarke, 2260.

Discitoceras, Hyatt, 2816.

Discoceras, Hyatt, 2819.

antiquissimum, Hyatt, 2819.

canadense n. sp., Whiteaves, 6087.

graftonense, Hyatt, 2819.

graftonense M. & W., Whiteaves, 6080.

Discohelix retifera n. sp., Dall, 1259.

verrili n. sp. (by Aldrich), Harris, 2316. Discophyllum peltatum Hall, Walcott, 5811.

Discorbina allomorphinoides (Reuss), Chapman, 870.

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Genera and species described-Continued.

Discorbina bertheloti (d'Orbigny), Bagg, 148, 150.

orbicularis, Bagg, 148.

Discotrochus orbignianus Milne-Edwards and Haime, Vaughan, 5735.

Disculina(?) Deslongchamps, Hall and Clarke, 2264.

Dispotæa tubifera, Say, 4813.

Dissacus carnifex Cope, Osborn and Earle,

leptognathus n. sp., Osborn and Wortman, 4180.

navajovius Cope, Matthew, 3801.

saurognathus Wortman, Matthew, 3801.

Dissorhophus articulatus Cope, Cope, 1102.

Distichium capillaceum, Penhallow, 4336.

Distyonema Hall, Graban, 2086.

Distyotites fasciolus n. sp., Penhallow, 4333. maximus n. sp., Penhallow, 4333.

Ditoecholasma n. gen., Simpson, 4984.

Dittodus latus (Newb.), Hay, 2388.

lucasi n. sp., Hay, 2388.

Divaricella prevaricata n. sp., Guppy and Dall, 2214.

Dizygocrinus W. and Sp. (nov. gen.), Wachsmuth and Springer, 5765a.

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funeraria n. sp., Scudder, 4898.

funesta n. sp., Scudder, 4898.

gorhami, Scudder, 4892, 4898.

gracilenta n. sp., Scudder, 4898.

gratiosa n. sp., Seudder, 4898.

hastata n. sp., Seudder, 4898.

hilliana n. sp., Scudder, 4898.

hustoni, Scudder, 4898. illustris, Scudder, 4892, 4898.

immolata n. sp., Seudder, 4898,

imperfecta n. sp., Scudder, 4898.

invisa n. sp., Scudder, 4898.

Paleontology-Continued.

Genera and species described-Continued.

Etoblattina jeffersoniana n. sp., Scudder, 4898.

lata n. sp., Scudder, 4898.

latebricola n. sp., Scudder, 4898.

macerata n. sp., Scudder, 4898.

macilenta n. sp., Scudder, 4898.

maetata n. sp., Scudder, 4898. maledicta n. sp., Scudder, 4898.

marginata, Scudder, 4898.

mazona, Scudder, 4898.

mediana, Scudder, 4898.

mucronata n. sp., Scudder, 4898. obatra n. sp., Scudder, 4898.

occulta n. sp., Scudder, 4898.

ovata II. sp., Seudder, 4898.

patiens n. sp., Scudder, 4898. præduleis n. sp., Scudder, 4898.

ramosa п. sp., Scudder, 4898.

recidiva u. sp., Scudder, 4898.

reliqua, Scudder, 4892, 4898.

sagittaria n. sp., Scudder, 4898,

scholfieldi, Scudder, 4892, 4898.

secreta n. sp., Seudder, 4898.

stipata, Scudder, 4898.

strigosa, Sendder, 4898,

tenuis, Seudder, 4898.

variegata, Scudder, 4898.

willsiana n. sp., Seudder, 4898.

sp. undet., Scudder, 4898.

Eucalathis Fischer and Œhlert, Hall and Clarke, 2264.

Eucalyptocrinus Goldfuss, Weller, 6002.

asper n. sp., Weller, 6002.

crassus Hall, Weller, 6002.

depressus S. A. Miller, Weller, 6002.

egani S. A. Miller, Weller, 6002.

elipticus n. sp., Miller, 3992.

elrodi n. sp., Miller, 3992.

gorbyi n. sp., Miller, 3992.

inornatus n. sp., Weller, 6002. lindahli n. sp., Wachsmuth and Springer,

milliganæ n. sp., Miller and Gurley, 4001. magnus Worthen, Weller, 6002.

nodulosus n. sp., Weller, 6002.

obconicus Hall, Weller, 6002.

ornatus Hall, Weller, 6002.

rotundus S. A. Miller, Weller, 6002.

subglobosus n. sp., Miller, 3992.

turbinatus S. A. Miller, Weller, 6002. wortheni n. sp., Miller and Gurley, 3997a

Eucalyptus, Ward, 5854.

(?) angustifolia 11. sp., Newberry, 4080. (?) attenuata II. sp., Newberry, 4080.

dakotensis n. sp., Lesquereux, 3470. geinitzi Hecr, Lesquereux, 3470.

geinitzi Heer, Newberry, 4080. gouldii n. sp., Ward, 5852.

(?) nervosa n. sp., Newberry, 4080.

nervosa Newb., Holliek, 2696. (?) parvifolia n. sp., Newberry, 4080.

Eucheilodon creno-carinatus, Aldrich, 74. ereno-carinata Heilp., Harris, 2311.

Euchirosaurus, Case, 767.

Euchodus amicrodus n. sp., Stewart, 5240. parvus n. sp., Stewart, 5240.

Genera and species described—Continued.

Eucladocrinus Meek (emended W. and Sp.),
Wachsmuth and Springer, 5765a.

millebrachiatus W. and Sp., Wachsmuth and Springer, 5765a.

millebrachiatus var. immaturus W. and Sp., Wachsmuth and Springer, 5765a. montanensis Meek, Wachsmuth and

Springer, 5765a.

pleuroyiminus (White), Keyes, 3061. pleuroyiminus White, Wachsmuth and Springer, 5765a.

praenuntius W. and Sp., Wachsmuth and Springer, 5765a.

tuberosus (Hall), Wachsmuth and Springer, 5765a.

Euclastes (?) sp., Clark, 906.

Euconospira planibasalis n. sp., Ulrich and Scofield, 5541.

Eueryptus n. gen., Scudder, 4890. sectus, Scudder, 4890.

Eucymba ocalana Dall, Dall, 1259. see Cymba (Eucymba) Dall, Dall, 1259.

Eudesella Munier-Chalmas, Hall and Clarke, 2264.

Eudomus n. gen., Scudder, 4890. pinguis, Scudder, 4890. robustus, Scudder, 4890.

Eugenia primæva n. sp., Lesquercux, 3470. Eugnamptus grandævus, Scudder, 4890.

Eulima conoidea Kurtz & Stimpson, Dall, 1259. egregia n. sp., Guppy and Dall, 2214. exilis Gabb, Harris, 2316.

? peracuta Meek and Worthen, Keyes, 3062. (Leiostraca) rectiuscula Dall, Dall, 1259. (Liostraca) nobilis n. sp., Guppy and Dall, 2214.

(Subularia) cainei n. sp., Harris, 2316. Eulimella? funicula Meek, Herrick and Johnson, 2465.

? funicula Meek, Stanton, 5191. tenua Gabb, Harris, 2316.

Eulithota fasciculata Hacckel, Walcott, 5811. Eumetria Hall, Hall and Clarke, 2261, 2264.

altirostris (White), Weller, 6006. perstrialis n. sp., Rowley, 4677a. (?) polypleura, Lane, 3400. verneuiliana Hall, Girty, 2038. verneuilana Hall, Weller, 5986.

Eunema brevispera n. sp., Whiteaves, 6074. clathratulum n. sp., Whiteaves, 6074. cretaceum n. sp., Whiteaves, 6085. speciosum n. sp., Whiteaves, 6074. subspinosum n. sp., Whiteaves, 6074.

Euomphalus Sowerby 1812, Berkey, 429. circinatus Whiteaves, Whiteaves, 6080. inornatus Whiteaves, Whiteaves, 6080. (circularis? Phillips, var.) subtrigonalis, Whiteaves, 6074.

n. sp., Girty, 2037.

Eupachycrinus harii n. sp., Miller, 3992.
? harii Miller, Keyes, 3061.
magister Miller and Gurley, Keyes, 3061.
magister, Miller and Gurley, 3991.
orbicularis, Whitfield, 6098.
parvus n. sp., Miller and Gurley, 3997a.

Paleontology-Continued.

Genera and species described—Continued.

Eupachyerinus sphæralis n. sp., Miller and Gurley, 3991.

tuberculatus Meek and Worthen, Girty, 2037.

tumulosus n. sp., Miller, 3992.

verrucosus (White and St. John), Keyes, 3061.

sp., Girty, 2037.

Euphanerops longævus, Woodward, 6437. Euphausia, Beecher, 366.

Euphemus, Girty, 2037.

Euphemus McCoy, Ulrich and Scofield, 5541.
(?) sp., Weller, 5994.

Eupheneric stays u. sp., Matthew G. E. 3759

Euphoberia atava n. sp., Matthew, G. F., 3759. Eupleura caudata Say, Dall, 1259.

var. sulcidentata Dall, Dall, 1259. miocenica n. sp., Dall, 1259. muriciniformis Broderip, Dall, 1259.

Euprotogonia Cope, Osborn and Earle, 4191. pucreensis Cope, Matthew, 3801. minor n. sp. Matthew, 3801. pucreensis Cope, Osborn and Earle, 4191.

Eupsammia conradi, nom. nov., Vaughan, 5735.

elaborata (Conrad), Vaughan, 5722, 5735.
(?) pileolus (Conrad), Vaughan, 5722.

Euractinella Bittner, Hall and Clarke, 2264. Eurotogonia Cope, Matthew, 3800.

minor n. sp., Matthew, 3800. puercensis (Cope), Matthew, 3800.

Eurychilina Ulrich, Ulrich, 5540. reticulata Ulrich, Ulrich, 5540. yar. incurva n. yar., Ulrich, 5540.

(?) subæquata n. sp., Ulrich, 5540. subradiata Ulrich, Ulrich, 5540.

(?) symmetrica n. sp., Ulrich, 5540. ventrosa n. sp., Ulrich, 5540.

Eurydictya, Simpson, 4983.

Eurydietya Ulrich, Ulrich, 5537. multipora? Hall sp., Ulrich, 5537.

Eurymartus latus n. sp., Matthew, 3768. (?) spinulosus n. sp., Matthew, 3768. sp.?, Matthew, 3768.

Eurymya n. gen., Ulrich, 5539. plana Hall, Ulrich, 5539.

Eurypterella ornata Matt., Matthew, G. F., 3758.

Eurypterus eriensis, Whitfield, 6099. kokomoensis n. sp., Miller and Gur

kokomoensis n. sp., Miller and Gurley, 4001. Eurystomites gibbosum n. sp., Hyatt, 2819.

Eurystomites gibbosum n. sp., Hyatt, 281 plicatus n. sp., Whiteaves, 6083, 6087. rotundus, Hyatt, 2819.

undatum, Hyatt, 2819.

undatus Emmons var. occidentalis Hall 1861, Clarke, 953.

virginiana, Hyatt, 2819. Euspilopora, Simpson, 4983.

Euthria dubia Ald., Harris, 2316. ? fragilis n. sp., Whitfield, 6097.

Eutrephoceras n. gen., Hyatt, 2819. dekayi, Hyatt, 2819.

faxoense n. sp., Hyatt, 2819. imperialis, Hyatt, 2810.

christyi (Shumard), Wachsmuth and Springer, 5765a.

Genera and species described-Continued.

Eutrephoceras W. and Sp. (nov. gen.), Wachsmuth and Springer, 5765a.

christyi, var. trochiscus (Meek and Worthen), Wachsmuth and Springer, 5765a. lovei W. and Sp., Wachsmuth and Springer 5765a.

planodiscus (Hall), Wachsmuth and Springer, 5765a.

Evactinopora, Simpson, 4983.

radiata Meek and Worthen, Keyes, 3062. Evarthrus tenebricus n. sp., Scudder, 4900.

Evopes n. gen., Scudder, 4890. occubatus, Scudder, 4890.

veneratus, Seudder, 4890

Excipulites callipterides (Schimp.) Kidst., White, 6050.

Exilia pergracilis, Harris, 2310, 2316. Exiteloceras n. gen., Hyatt, 2819.

Exogyra, Say, 4813.

americana Marcou, Cragin, 1115. columbella Meck, Cragin, 1115. columbella Meck, Stanton, 5191. costata, Say, 4813.

costata Say, Harris, 2315.

drakei n. sp., Cragin, 1115. ferox n, sp., Cragin, 1115.

hilli n. sp., Cragin, 1115.

læviuscula Roemer, Cragin, 1115. læviuscula Roemer, Logan, 3554.

læviuscula Roemer, Stanton, 5191. paupercula n. sp., Cragin, 1115.

plexa n. sp., Cragin, 1115.

ponderosa Roemer, Logan, 3554. ponderosa Roemer, Stanton, 5191.

potosina n. sp., Aguilera, 57.

suborbiculata Lamark (sp.), Stanton, 5191.

texana, Stanton, 5197.

weatherfordensis n. sp., Cragin, 1115.

Exomias obdurefactus, Scudder, 4890.

Fabella oblonga n. sp., Aldrich, 74.

oblonga, Harris, 2313. Fagophyllum nervosum n. sp., Dawson, 1436.

retosum n. sp., Dawson, 1436. Fagus cretacea Newb., Newberry, 4083. orbiculatum n. sp., Lesquereux, 3470.

undulata n. sp., Knowlton, 3255.

Fasciolaria distans Lamarck, Dall, 1259. (distans subsp?)

> apicina Dall, Dall, 1259. monocingulata Dall, Dall, 1259. rhomboidea Rogers, Dall, 1259.

elegans Emmons, Dall, 1259.

hercules Whitfield, 6097.

propingua n. sp., Whitfield, 6097.

sampsoni n. sp., Whitfield, 6097.

(sparrowi var.?) acuta Emmons, Dall, 1259.

tulipa Linné, Dall, 1259.

walcotti n. sp., Stanton, 5191.

woodi, Whitfield, 6101.

(Cryptorhytis) utahensis Meck (sp.), Stanton, 5191.

Fasciolaris sp., Logan, 3555.

Favia merriami n. sp., Vaughan, 5735. taxana n. sp., Cragin, 1115.

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Genera and species described—Continued. Favicella, Simpson, 4983.

Favosites Lamarek, Grabau, 2086.

Favosites Lamarck, Lambe, 3374.

Favosites Lam., Say, 4813.

alpenensis, Lambe, 3374. argus Hall, Grabau, 2086.

aspera d'Orbigny, Lambe, 3374.

basaltica Goldfuss (sp.), Lambe, 3374. billingsii Rominger, Lambe, 3374.

eanadensis Billings (sp.), Lambe, 3374. cervicornis Milne-Edwards and Haime,

Lambe, 3374.

clausa Rominger, Lambe, 3374. clavatulus, n. sp., Greene, 2162d.

conicus Hall, Girty, 2032, 2034, 2037. conradi n. sp., Girty, 2034.

digitata Rominger, Lambe, 3374.

favosa? (Goldfuss), Keyes, 3061. forbesi var. occidentalis, Girty, 2032.

gaspensis n. sp., Lambe, 3374, globusus n. sp., Greene, 2162.

gothlandica Lamarck, Lambe, 3374.

hamiltoniæ Hall, Grabau, 2086.

helderberglæ Hall, Girty, 2034.

hemispherica (Troost), Keyes, 3061.

hemispherica Milne-Edwards and Haime, Lambe, 3374.

hemispherieus, Girty, 2032.

hisingeri Milne-Edwards and Haime,

niagarensis Hall, Lambe, 3374.

polymorpha (Goldfuss) Billings, Whiteaves, 6080.

prolificus Billings, Whiteaves, 6087.

radiciformis Rominger, Lambe, 3374.

rotundituba n. sp., Greene, 2162.

rotundus n. sp., Greene, 2162d.

turbinata Billings, Lambe, 3374. sp., Girty, 2038.

Favositidæ, Beecher, 353.

Fayolia sp., White, 6052.

Feistmantelia oblonga Ward, n. sp., Fontaine, 1850.

Felis eyra Desm., Cope, 1104.

hillanus Cope, Cope, 1087. probiscidia, Cope, 1087.

Fenestella Lousdale, Girty, 2038. Fenestella Miller, Grabau, 2086.

Fenestella, Simpson, 4983.

albuquerqueana u. sp., Herrick and Bendrat, 2464.

biseriata Hall (?), Clarke, 971.

dentata n. sp., Rogers, 4656.

emaciata Hall, Grabau, 2086.

hexagonalis n. sp., Rogers, 4656. kansasensis n. sp., Rogers, 4656.

missouriensis n. sp., Rogers, 4656. ovatipora n. sp., Rogers, 4656.

planiramosa Hall, Grabau, 2086. rudis Ulrich, Keyes, 3062. shumardi Prout, Keyes, 3062.

Fenestralia, Simpson, 4983.

Genera and species described—Continued.

Fenestrapora, Simpson, 4983.

Ficophyllum serratum Fontaine, Fontaine, 1850.

Ficus alaskana Newberry, Knowlton, 3232. (?) alaskana Newb., Newberry, 4083. aligera n. sp., Lesquereux, 3470. artoearpoides (?) Lx., Holliek, 2708. asarifolia Ett., Knowlton, 3264. asarifolia minor Lesq., Newberry, 4083. austiniana n. sp., Lesquereux, 3472. berthoudi n. sp., Lesquereux, 3470. (?) condoni Newb., Newberry, 4083. contorta n. sp., Dawson, 1436. erassipes Heer, Lesquereux, 3470. dalmatica Ett., Knowlton, 3264. deflexa n. sp., Lesquereux, 3470. deformata n. sp., Knowlton, 3255. densifolia n. sp., Knowlton, 3255. glascœna, Lesq., Lesquereux, 3470. hadjdenii, Lesq., Kirehner, 3187. haguei n. sp., Knowlton, 3255. harrisiana n. sp., Hollick, 2708. hesperia n. sp., Knowlton, 3262, 3264. inæqualis n. sp., Lesquereux, 3470. incompleta n. sp., Knowlton, 3264. irregularis Lx., Knowlton, 3264. krausiana Heer, Hollick, 2696. krausiana Heer, Lesquereux, 3470. laeustris n. sp., Knowlton, 3263. laurophyllidia n. sp., Dawson, 1436. lanceolata-acuminata Ett., Lesquereux,

3470. lignitum Lx., Knowlton, 3264. macrophylla n. sp., Lesquereux, 3470. magnolifolia Lesq., Dawson, 1436. magnoliæfolia Lesq., Lesquereux, 3470. melanophylla n. sp., Lesquereux, 3470. membraneea Newberry, Knowlton, 3232. membranacea Newb., Newberry, 4083. missouriensis n. sp., Knowlton, 3264. montana n. sp., Knowlton, 3264. mudgei n. sp., Lesquereux, 3470. multinervis Heer, Knowlton, 3264. myricoides Hollick n. sp., Newberry, 4080. ovata n. sp., Newberry, 4080. penitus?, Whitfield, 6097. planicostata Lx., Hollick, 2708. planicostata? Lx., Knowlton, 3264. planicostata Lesq. ?, Newberry, 4083. populoides n. sp., Knowlton, 3264. præeursor n. sp., Lesquereux, 3470. precedens n. sp., Whitfield, 6097. problematica n. sp., Knowlton, 3264. proteoides n. sp., Lesquereux, 3470. reticulata (Lesq.) Hollick, Newberry, 4083. rhamnoides n. sp., Knowlton. 3264. rotundata n. sp., Dawson, 1436 shastensis (?) Lesq., Dawson, 1448. shastensis, Knowlton, 3235. cf. sordida Lesquercux, Knowlton, 3262. sordida, Knowlton, 3235 speciosissima Ward, Knowlton, 3264. squarrosa n. sp., Knowlton, 3264. sternbergii n. sp. Lesquereux, 3470. tillæfolia Al. Br., Knowlton, 3264.

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Genera and species described—Continued.
Ficus trinervis n. sp., Knowlton, 3264.
undulata n. sp., Lesquereux, 3470.
nngeri Lx., Knowlton, 3246, 3255.
wardii n. sp., Knowlton, 3264.
wellingtonæ n. sp., Dawson, 1436.
willisiana n. sp., Hollick, 2672.
woolconi Newb. (?), Hollick, 2696.
woolsoni n. sp., Newberry, 4092.
sp., Knowlton, 3255, 3262.

Fissurella alabama n. sp., Harris, 2316. bipunetata n. sp., Stanton, 5199. griseomi, Whitfield, 6101. mediavia n. sp., Harris, 2310. redimicula, Say, 4813.

Fissuridea caloosaensis n. sp., Dall, 1259. carditella n. sp., Dall, 1259. carolinensis Conrad, Dall, 1259. chipolana n. sp., Dall, 1259. nucula n. sp., Dall, 1259.

Fistulana (Bruguiere) Cuvier, Dall, 1272. oealana n. sp., Dall, 1272.

Fistulicella n. gen., Simpson, 4983. Fistulicella Simpson, Grabau, 2086. plana Hall, Grabau, 2086.

Fistulipora, Simpson, 4983. Fistuliporella n. gen., Simpson, 4983. Fistuliporidra n. gen., Simpson, 4983. Fistuliporina n. gen., Simpson, 4983.

Fistuliporina I., gen., Simpson, 4388. Fistuliporina Simpson, Grabau, 2086. digitata (Hall), Grabau, 2086. micropora (Hall), Grabau, 2086. minuta (Rominger), Grabau, 2086. scrobitulata (Hall), Grabau, 2086. segregata (Hall), Grabau, 2086.

Flabellina cordata Reuss, Bagg, 150. sagittaria (Lea), Bagg, 150.

Flabelliporella, Simpson, 4983. Flabellum californicum n. sp., Vaughan, 5735. conoideum n. sp., Vaughan, 5735. var. matthewsense, n. var., Vaughan,

euneiforme Lonsdale, Vaughan, 5735. var. acutiforme n. var., Vaughan, 5735. var. fragile n. var., Vaughan, 5735. var. magnocostatum n. var., Vaughan,

var. pachyphyllum Gabb and Horn, Vaughan, 5735.

var. wailesi Conrad, Vaughan, 5735. flabellum sp., Vaughan, 5735. johnsoni n. sp., Vaughan, 5735. lerehi n. sp., Vaughan, 5735. mortoni n. sp., Vaughan, 5735. remondianum Gabb, Stanton, 5198. Gabb, Vaughan, 5735.

rhomboideum n. sp., Vaughan, 5735. Fletcheria Milne-Edwards and Haime, Lambe, 3374.

incerta Billings (sp.), Lambe, 3374. Fontainea n. gen., Newberry, 4080. grandifolia n. sp., Newberry, 4080.

Foordiceras n. gen., Hyatt, 2816. Forbesocrinus agassizi Hall, Keyes, 3061. greenei n. sp., Miller and Gurley, 4000. jerseyensis n. sp., Miller and Gurley, 3999.

Genera and species described—Continued.

Forbesocrinus macadamsi n. sp., Miller and Gurley, 4000.

multibrachiatus Lyon and Casseday, Miller and Gurley, 3999.

pyriformis n. sp., Miller and Gurley, 3997a. speciosus n. sp., Miller and Gurley, 3991. washingtonensis n. sp., Miller and Gurley, 4000

Fornax ledensis, Scudder, 4896.

Fossarus (Gottoina) mundulus n. sp., Guppy and Dall, 2214.

(Isapis) anomala C. B. Adams, Dall, 1259. Fraxinus affinis Newb., Newberry, 4083.

denticulata Heer, Knowlton, 3255. Heer?, Newberry, 1083. lierendeenensis n. sp., Knowlton, 3232. integrifolia Newb., Newberry, 4083. jolmstrupi (?) Heer, Hollick, 2696.

quadrangulata, Dawson, G. M., 1418. Michx., Penhallow, 4334.

wrightii n. sp., Knowlton, 3255. Frenelopsis gracilis n. sp., Newberry, 4080. hoheneggeri, Fontaine, 1846.

(Ett.) Selienk, Fontaine, 1847.

(Ett.) Schenk (?), Newberry, 4080.

varians II. sp., Fontaine, 1846, 1847. Frondieularia alata d'Orbigny, Bagg, 100. augusta (Nilsson) var. dimidia Bagg, Bagg, 150.

var. dimidia, Bagg, 144.

archiaciana d'Orbigny, var. strigillata n. var., Bagg, 150.

elarki, n. sp., Bagg, 144, 150.

gaultina Reuss, Bag, 150. inversa Renss, Bagg, 144, 150.

lanceola Reuss, Bagg, 144, 150.

major Bornemann, Bagg, 150.

ovata Roemer, Bagg, 150. pulchella Karrer, Bagg, 150.

reticulata (Reuss), Bagg, 150. vernenilina d'Orbigny, Bagg, 150.

Fucus digitatus n. sp., Penhallow, 4336.

Fulgur argutus n. sp., Clark, 904. canaliculatus, Say, 4813.

carica, Woolman, 6474.

(?) dallianum n. sp., Harris, 2310.

echinatum u. sp., Dall., 1259.

elieeans, Say, 4813.

eocense n. sp., Aldrich, 73.

maximum Conrad, Dall., 1259.

perversum Linné, Dall, 1259.

pyrum var. æpynotum, Dall, 1259.

(pyrum var.?) planulatum п. sp., Dall.

scalarispira Conrad, Dall, 1259. spiniger Courad, Dall, 1259. stellatum n. sp., Dall, 1259.

Fulguroficus argutus Clark, Clark, 906. triserialis Whitf., Harris, 2316.

Fuliea minor n. sp., Shnfeldt, 4960.

Fusispira Hall, Ulrich and Scofield, 5541. angusta п. sp., Ulrich and Scofield, 5541.

ar, subplana n. var., Ulrich and Scofield, 5541.

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Genera and species described—Continued.

Fusispira convexa u. sp., Ulrich and Scoffeld, 5541.

inflata Meek and Worthen, Ulrich and Scofield, 5541.

intermedia n. sp., Ulrich and Scofield,

nobilis n. sp., Ulrich and Scofield, 5541. planulata n. sp., Ulrich and Scofield, 5541. schucherti, n. sp., Ulrich and Scofield,

subbrevis n. sp., Ulrich and Scofield, 5541. subfusiformis Hall, Ulrich and Scofield,

sulcata n. sp., Ulrich and Scofield, 5541. Fusoficula juvenis Whitf., Harris, 2315, 2316. Fushlina cylindrica Fischer, Keyes, 3061.

cylindrica, Smith, 5001.

Fusus angularis п. sp., Whitfield, 6097.

ballista n. sp., Dall, 1259.

bastropensis, II. sp., Harris, 2307. bellanus n. sp., Harris, 2311, 2316.

burnsii Dall, Dall, 1259.

caloosæusis Heilprin, Dall, 1259.

eostatus, Say, 4813.

eocenicus n. sp., Whitfield, 6097.

equalis Emmons, Dall, 1259.

fragilis Wagner, Dall, 1273.

gabbi Meek, Herrick and Johnson, 2465.

gabbi Meek, Stanton, 5191.

graysonensis n. sp., Cragin, 1115. harrisi u. sp., Aldrich, 73.

harrisi Ald., Harris, 2315.

hector n. sp., Whitfield, 6097.

var. multilineatus n. var., Whitfield,

holmdelensis n. sp., Whitfield, 6097.

hubbardanus n. sp., Harris, 2310.

insectoides n. sp., Harris, 2311.

interstriatus Heilp., Harris, 2316.

marnochi, Aldrich, 74.

meyeri var., Harris, 2310.

(?) moliri n. sp., Aldrich, 73.

moliri, Harris, 2310.

montgomeriensis n. sp., Vaughan, 5722. mortoni Lea, var., Harris, 2311.

ostrarupis n. sp., Harris, 2307, 2310.

ottonis Ald., Harris, 2716.

paucicostatus n. sp., Whitfield, 6097.

perobesus n. sp., Whitfield, 6097.

pluricostatus n. sp., Whitfield, 6097.

quercollis n. sp., Harris, 2310.

quinquespinus п. sp., Dall, 1259. rugatus Ald., Harris, 2311, 2316.

shumardi H. and M., Herrick and Johnson, 2465.

shumardi H. and M., Stanton, 5191.

siphus n. sp., Aldrich, 73.

subfilosus II. sp., Aldrich, 74. subtenuis Heilp., Harris, 2316.

supraplanus n. sp., Cooper, 1071.

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alabamaensis n. sp., Walcott, 5808. bella Billings (?), Grabau, 2092. crenistria n. sp., Walcott, 5808. logani n. sp., Walcott, 5808. pealei n. sp., Walcott, 5808. seulptis Meek, Walcott, 5816. superba n. sp., Walcott, 5808.

Iris sp. ?, Newberry, 4083.

sp. undet., Walcott, 5816.

Irites alaskana Lesquereux, Knowlton, 3232. Isehadites Murchison emende Hinde, Winchell and Schuchert, 6318.

iowensis Owen, sp., Winchell and Schuehert, 6318.

Ischnochiton tampænsis n. sp., Dall, 1259. Ischyrhiza (?) radiata Clark, Clark, 904, 906, Ischyrodonta Ulrich, Ulrich, 5535.

decipiens n. sp., Ulrich, 5535. elongata, Ulrich, 5535, miseneri n. sp., Ulrich, 5535. modioliformis n. sp., Ulrich, 5535. ovalis n. sp., Ulrich, 5534, 5535. truncata, Ulrich, 5535. unionoides, Ulrich, 5535.

Ismenia King, Hall and Clarke, 2264.

Isocardia carolina u. sp., Dall, 1281.

floridana n. sp., Dall, 1281. fraterna, Say, 4813. fraterna Say, Dall, 1281. humana Linné, Dall, 1281. humilis n. sp., Cragin, 1115. markei Courad, Dall, 1281. mediavia n. sp., Harris, 2310. tenuidens Whitfield, Dall, 1265.

Isochilina Jones, Grabau, 2086. fabacea Jones, Grabau, 2086.

Isodectes punetulatus Cope, Cope, 1103.

Isopholis, Hay, 2381.

Isotelus eanalis Whitfield sp., Clarke, 952. gigus De Kay, 1824, Clarke, 952. maximus Locke, 1838, Clarke, 952. susæ Whitfield, 1882, Clarke, 952.

Isothea n. gen., Scudder, 4890. alleni, Seudder, 4890.

Isotrypa, Simpson, 4983. sp. indes., Clarke, 971.

Janassa gurleyana Cope, Case, 773. strigilina Cope, Case, 773.

Jonesella Ulrich, Ulrich, 5540. obseura n. sp., Ulrich, 5540.

Juglandites ellsworthianus n. sp., Lesquereux, 3470.

fallax n. sp., Dawson, 1436. lacoei n. sp., Lesquereux, 3470. primordialis n. sp., Lesquereux, 3470. Paleontology-Continued.

Genera and species described—Continued.

Juglandites sinuatus n. sp., Lesquereux, 3470.

Juglans affinis n. sp., Kirchner, 3187.
arctica Heer (?), Hollick, 2696.
arctica Heer, Lesquereux, 3470.
arctica Heer (?), Newberry, 4080.
crassipes Heer, Lesquereux, 3470.
erescentia n. sp., Knowlton, 3255.
erossii Knowlton, Kirchner, 3187.
debeyana (Heer) Lesq., Lesquereux, 3472.
hesperia n. sp., Knowlton, 3246.
laurifolia n. sp., Knowlton, 3255.
? missouriensis n. sp., Knowlton, 3264.

nigella Heer, Newberry, 4083. oceidentalis Newb., Newberry, 4083.

rugosa Lx., Holliek, 2708. sehimperi Lx., Holliek, 2708. townsendi n. sp., Knowlton, 3232.

sp., Knowlton, 3262. Julia Gould, Dall, 1272.

fioridana n. sp., Dall, 1272. Juniperus maeilenta Heer, Newberry, 4080. Juvavella Bittner, Hall and Clarke, 2264.

Karpinskia Tsehernysehew, Hall and Clarke, 2261, 2264.

Kayserella n. gen., Hall and Clarke, 2260.Kayseria Davidson, Hall and Clarke, 2261, 2264.

Keilostoma mediavia n. sp., Harris, 2310. Kellia Turton, Dall, 1281.

prima n. sp., Aldrich, 74. prima Ald., Harris, 2313, 2315. suborbicularis Montagu, Dall, 1281. sp. indet., Dall, 1281.

Kelliella Sars., Dall, 1281.

Keristella cf. haskinsi Hall, Girty, 2035. Keyserlingia Pander, Hall and Clarke, 2260.

Kingena Davidson, Hall and Clarke, 2264. Kionelasma n. gen., Simpson, 4984.

Kirkbya eymbula n. sp., Ulrich, 5543. germana n. sp., Ulrich, 5543.

Kokenia n. gen., Ulrich and Scofield, 5541. costalis n. sp., Ulrich and Scofield, 5541.

Koninckella Munier-Chalmas, Hall and Clarke, 2264.

Koninckina Suess, Hall and Clarke, 2264.

Koninekioceras, Hyatt, 2816.

Koninckodonta Bittner, Hall and Clarke, 2264.

Krausella n. gen., Ulrieh, 5540. arcuata n. sp., Ulrieh, 5540. inæqualis n. sp., Ulrieh, 5540.

Kraussina Davidson, Hall and Clarke, 2264. Kutorgina Billings, Hall and Clarke, 2260.

Kutorgina Billings, Matthew, 3790. granulata, Matthew, 3790.

Laasbium agassizii n. sp., Scudder, 4900.

seetile n. sp., Seudder, 4900. Labechua huronensis Billings sp., Lambe,

Labechua huronensis Billings sp., Laml 3377. Labiosa (Ræta) Gray, Dall, 1272.

alta Conrad, Dall, 1272. eanalieulata Say, Dall, 1272. (Rætella) Dall, 1272. (Schmidt) Moller, Dall, 1272.

Laceophyllum n. gen., Simpson, 4984.

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Genera and species described—Continued.

Laccophyllum acuminatum n. sp., Simpson, 1984.

Laccopteris lanceolata (Göpp) Presl, n, comb. ?, Ward, 5857.

Laccopygus n. gen., Scudder, 4890. nilesii, Scudder, 4890.

Lacertilia, Cope, 1081.

Lachnopus humatus, Seudder, 4890. recuperatus, Seudder, 4890.

Lælaps incrassatus Cope, Cope, 1083. incrassatus, Hay, 2384.

Lagena aspera Reuss, Woodward and Thomas, 6433

erenata Parker and Jones, Chapman, 870. favosa-punctata Brady, Woodward and Thomas, 6433.

globosa (Montagu) Bagg, 148, 150.

hispida Reuss, Woodward and Thomas, 6433.

sulcata (Walker and Jacob), Chapman, 870. Lagomys palatinus Cope, Cope, 1104.

Lambdotherium Cope, Osborn, 4194. popoagicum Cope, Osborn, 4193a, 4194.

Lamna appendiculata, Williston, 6259.

macrorhiza, Williston, 6259. mudgei, Williston, 6259.

(?) obliqua Agassiz, Clark, 906.

(?) quinquelateralis n. sp., Cragin, 1119. quinquelateralis, Williston, 6259. sulcata, Williston, 6259.

(Odontaspis?) sp., Williston, 6259.

Lampterocrinus Roemer, Weller, 6002.

(?) dubius n. sp., Weller, 6002. inflatus Hall, Weller, 6002. robustus n. sp., Weller, 6002.

(?) subglobosus n. sp., Weller, 6002.

Laosaurus, Marsh, 3701.

Laotira n. gen., Walcott, 5805, 5811. cambria n. sp., Walcott, 5805, 5811.

Laphmina Œhlert, Hall and Clarke, 2260.

Lapparia Conrad, Dall, 1259. dumosa Con, var., Harris, 2316.

Laqueus Dall, Hall and Clarke, 2264.

Laricopsis longifolia Font., Fontaine, 1846, 1847.

Lariosaurus, Case, 768.

Larix americana, Penhallow, 4336. churchbridgensis, Penhallow, 4330.

Larus californicus?, Shufeldt, 4960. oregonus n. sp., Shufeldt, 4960. philadelphia, Shufeldt, 4960. robustus n. sp., Shufeldt, 4960.

Lasæa Leach, Dall, 1281.

rubra (Montagu) Brown, Dall, 1281.

Lasiothrix Hinde, Dawson, 1452.

curvicostata Hinde, Dawson, 1452. flabellata n. sp., Dawson, 1452.

Lastrea (Goniopteris) fischeri Heer, Knowlton, 3262.

fischeri Heer?, Newberry, 4083. Lathrobium interglaciale, Scudder, 4896. Latiarca Conrad, Whitfield, 6101. Latirus alabamensis n. sp., Aldrich, 73. callimorphus n. sp., Dall, 1259.

floridanus Heilprin, Dall, 1259.

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Genera and species described—Continued.

Latirus (floripanus var.?) multilineatus, Dall, 1259.

hysipettus n. sp., Dall, 1259. imbricatulus n. sp., Harris, 2311. indistinctus n. sp., Aldrich, 71.

leænsis n. sp., Harris, 2311. rugatus n. sp., Dall, 1259.

singleyi n. sp., Harris, 2307. tessellatus n. sp., Dall, 1259.

tortilis var. nanafalius n. var., Harris, 2316.

Laurelia primæva n. sp., Lesquereux, 3470.
Laurinoxylon pulchrum n. sp., Knowlton, 3255.

Laurophyllum augustifolium n. sp., Newberry, 4080.

ellsworthianum Lesq., Lesquereux, 3470. insigne n. sp., Dawson, 1436. lanceolatum n. sp., Newberry, 4080.

minus n. sp., Newberry, 4080. Laurus angusta Heer, Lesquereux, 3470. antecedens n. sp., Lesquereux, 3470. grandis Lx., Knowlton, 3255.

hollæ Heer, Lesquereux, 3470. knowltoni n. sp., Lesquereux, 3470. montana n. sp., Knowlton, 3255.

nebrascensis Lesq., Lesquereux, 3470. newberryana n. sp., Hollick, 2672.

perdita n. sp., Knowlton, 3255. plutonia Heer, Hollick, 2698.

plutonia? Heer, Lesquereux, 3472. plutonia Heer, Newberrry, 4080.

præstans Lx., Knowlton, 3264. primigenia Ung., Hollick, 2708.

primigenia? Ung., Kuowlton, 3255, 3264. princeps Heer, Knowlton, 3255.

pseudo-carolinensis Lx., Knowlton, 3255. salicifolia, Knowlton, 3235.

similis n. sp., Knowlton, 3262. (Carpites) microcarpa n. sp., Lesquereux,

plutonia Heer, Lesquereux, 3470. teliformis n. sp., Lesquereux, 3470. ? sp., Knowlton, 3264.

Laxispira imbricalis, Harris, 2315. lumbricalis, Whitfield, 6097.

Leaia leidyi, Dawson, 1454.

Lebedictya n. gen., Hall and Clarke, 2269, 2270.

crinita n. sp., Hall and Clarke, 2269, 2270. Lecanocrinus Hall, Weller, 6002.

greenei n. sp., Miller and Gurley, 3999. oswegoensis n. sp., Miller and Gurley, 3997b.

tennesseensis n. sp., Miller, 3992. waukoma (Hall), Weller, 6002.

Lecythiocrinus olliculæformis White, Keyes, 3061.

Leda, Schumacher, Dall, 1272.

acala n. sp., Dall, 1272. acrybia n. sp., Dall, 1272.

acuta Conrad, Dall, 1272.

alæformis (Gabb), Stanton, 5198. albirupina n. sp., Harris, 2305. aldrichiana Har, var., Harris, 2315.

Genera and species described—Continued.

Leda amydra n. sp. (?), Dall, 1272.

bastropensis n. sp., Harris, 2307. canonica n. sp. (linifera Conrad var.?), Dall, 1272.

catasarca n. sp., Dall, 1272, concentrica Say, Dall, 1272, corpulentoides Ald. var., Harris, 2313, 2315.

dabbi (Conrad), Stanton, 5198. diversa, Hall and Clarke, 976.

dodona n. sp., Dall, 1272. elongatoidea n. sp., Aldrich, 73.

elongatoidea, Harris, 2313.

elongatoidea var. (?), Harris, 2310. flexuosa Heilprin, Dall, 1272.

glabba n. sp., Stanton, 5199. (?) harveyi n. sp., Hill, 2539.

houstonia n. sp., Harris, 2307. hypsoma n. sp., Dall, 1272.

improcera (Conrad), Clark, 906. lisbonensis n. sp., Aldrich, 73. marieana n. sp., Aldrich, 74.

marieana, Harris, 2313. milamensis, Harris, 2310.

multilineata Conrad, Dall, 1272. parva (Rogers), Clark, 906.

parva, Harris, 2313.

phalaera n. sp.(?), Dall, 1272. phareida n. sp., Dall, 1272.

protexta (Conrad), Clark, 906. protexta, Harris, 2313.

protexta Gabb, Dall, 1272.

quercollis u. sp., Harris, 2310. regina-jacksonis n. sp., Harris, 2311.

robusta n. sp., Aldrich, 73. saffordana n. sp., Harris, 2310.

semenoides 11. sp., Aldrich, 73. trochilia n. sp., Dall, 1272.

(Adrana) cultelliformis (Rogers), Clark, 906.

Legumen planulatum Con., Harris, 2315. Leguminosites atanensis Heer, Newberry, 4080. constrictus n. sp., Lesquereux, 3470.

convolutus n. sp., Lesquereux, 3470. coronilloides (?) Heer, Lesquereux, 3470 coronilloides Heer, Newberry, 4080. dakotensis n. sp., Lesquereux, 3470. hymenophyllus n. sp., Lesquereux, 3470. insularis Heer, Lesquereux, 3470. lamarensis n. sp., Knowlton, 3255. lesquere xiana Kn., Knowlton, 3255.

marcouanus Heer, Newberry, 4083. omphalobioides n. sp., Lesquereux, 3470 omphalobioides Lesq., Newberry, 4080.

phæseolites (Heer), Lesquereux, 3470. podogonialis n. sp., Lesquereux, 3470.

truncatus n. sp., Lesquereux, 3470. Leiocidaris hemigranosa Shumard, Cragin,

hemigranosus Shumard, Clark, 892.

Leiopteria Hall, Grabau, 2086. conradi Hall, Grabau, 2086. rafiuesquii Hall, Grabau, 2086. spinalata (Win.), Weller, 6006. torreyi? Hall, Lane, 3400. Paleontology-Continued.

Genera and species described—Continued. Leiorhynchus Hall, Grabau, 2086.

iorhynchus Hall, Grabau, 2086. dubium Hall, Grabau, 2086.

limitare (Vanuxem), Grabau, 2086. limitaris, Whitfield, 6099.

multicostus Hall, Grabau, 2086. quadricostatum(Vanuxem), Grabau, 2086.

quadricostatum Vanuxem, Girty, 2035. Leiostoma (?) ludoviciana n. sp., Harris, 2315.

Leiostraca cretacea, Whitfield, 6097. Leiotrochus Conrad, Whitfield, 6101.

Lepacyclotes circularis Emmons, Ward, 5857, ellipticus Emmons, Ward, 5857.

Leperditella n. gen., Ulrich, 5540. canalis n. sp., Ulrich, 5540.

(?) dorsicornis Ulrich, Ulrich, 5540. germana Ulrich, Ulrich, 5540. macra n. sp., Ulrich, 5540.

persimilis n. sp., Ulrich, 5540.

Leperditia Ronault, Grabau, 2086, 2092. Leperditia, Ulrich, 5540.

æquilatera u. sp., Ulrich, 5532. alia, Whitfield, 6099.

anguilifera, Whitfield, 6099. fabulites Conrad, Ulrich, 5540.

fimbriata n. sp., Ulrich, 5532. germana u. sp., Ulrich, 5532.

granilabiata n. sp., 5532.

hudsonica Hall, Grabau, 2086, inflata n. sp., Ulrich, 5532.

millepunetata n. sp., Ulrich, 5532.

? minor n. sp., Matthew, 3761. mundula n. sp., Ulrich, 5532.

okeni Dawson, 1454. ? primæva n. sp., Matthew, 3761.

(? primitia) dorsicornis n. sp., Ulrich, 5532. cf. l. solitaria Barrand, Burr, 666.

? steadi, Matthew, 3761. sublavis (Shumard), Keyes, 3061.

sulcata n. sp. and ventricornis n. var., Ulrich, 5532.

tumida n. sp., Ulrich, 5532. ? ventricosa, Matthew, 3761.

Lepidechinus imbricatus Hall, Keyes, 3077. rarispinus, Jackson, 2871.

rarispinus Hall, Keyes, 3077. squamosus (Meek and Worthen), Keyes, 3077.

 ${\bf Lepidendron,\ McCalley,\ 3815.}$

Lepidesthes colletti, Jackson, 2871. eolletti White, Keyes, 3077.

coreyi, Jackson, 2871.

coreyi Meek and Worthen, Keyes, 3077. formosus, Jackson, 2871,

wortheni n. sp., Jackson, 2871. Lepidesthidæ n. fam., Jackson, 2871.

Lepiditta alata, Matthew, 3770.

auriculata n. sp., Matthew, 3751, 3770. curta, Matthew, 3770.

sigillata n. sp., Matthew, 3751, 3761. Lepidocentrus mulleri Schultze, Jackson, 2871

Lepidocidaris squamosus, Jackson, 2871.

Lepidocoleus jamesi, Clarke, 951. polypetalus n. sp., Clarke, 951.

sarlei n. sp., Clarke, 951. Lepidocystis vesicularis Lx., White, 6049.

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Genera and species described—Continued. Lepidodendron, Dawson, 1455. Lepidodendron Sternberg, White, 6050.

alabamense n. sp., White, 6052. brittsii Lx., White, 6050. choctavense n. sp., White, 6049. clypeatum Lx., White, 6050, 6052. cyclostigma Lx., White, 6046. lanceolatum Lx., White, 6050.

modulatum Lx., White, 6049. rimosum var. recorticatum n. var., White,

scutatum Lx., White, 6050. sp., Herrick and Johnson, 2465.

Lepidolites Ulrich, Winchell and Schuchert,

Lepidophloios, Dawson, 1455.

Lepidophloios Sternberg, White, 6050. acadicanus Dawson, Dawson, 1455. cliftonensis Dawson, 1455, 1456. van ingeni n. sp., White, 6050. (?) cf. van ingeni, White, 6050.

Lepidophyllum brevifolium Lx., White, 6049. jenneyi n: sp., White, 6050. lanceolatum L. and H., White, 6049. cf. mansfieldi Lx., White, 6049. missouriense n. sp., White, 6050. quinnimontanum n. sp., White, 6052. truncatum Lx., White, 6049.

Lepidostrobus princeps Lx., White, 6050. Lepidoxylon anomalum Lx., White, 6050. Lepidurus productus, Beecher, 36.

Lepodosteus atrox Leidy, Eastman, 1606, 1610. simplex Leidy, Eastman, 1606.

Leptacinus ? exsucidus n. sp., Scudder, 4900. fossus n. sp., Scudder, 4900. leidyi n. sp., Scudder, 4900. maclurei n. sp., Scudder, 4900. rigatus n. sp., Scudder, 4900.

Leptæna Dalman, Hall and Clarke, 2260. Leptæna Dalman, Winchell and Schuchert,

charlottæ, Winchell and Schuchert, 6298,

rhomboidalis, Foerste, 1835. rhomboidalis Wilckens, Clarke, 971. rhomboidalis Wilkens, Girty, 2037, 2038. sericea, Sowerby, Keyes, 3062. unicostata Meek and Worthen, sp., Win-

chell and Schuchert, 6319. Leptænisca Beecher, Hall and Clarke, 2266.

adnascens n. sp., Hall and Clarke, 2260, tangens n. sp., Hall and Clarke, 2260, 2268.

Leptarctus primus Leidy, Wortman, 6485. Leptecodon rectus n. gen. et sp., Williston. 6253.

Leptella n. gen., Hall and Clarke, 2260. Leptichthys n. gen., Stewart, 5245. agilis n. sp., Stewart, 5245.

Leptobolus Hall, Hall and Clarke, 2260. grandis n. sp., Matthew, 3751.

Leptobrachites gigantea Haeckel, Walcott,

trigonobrachius Haeckel, Walcott, 5811. Leptochærus graeilis n. sp., Marsh, 3690.

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Genera and species described—Continued. Leptocœlia Hall, Hall and Clarke, 2261. flabellites Conrad, Clarke, 971.

Leptodesma, Clarke, 941.

Leptodora hyalina, Beccher, 366.

Leptograptus macrotheca n. sp., Gurley, 2217. Leptomaria gigantea n. sp., Whitfield, 6097.

pergranulosa n. sp., Whitfield, 6097. perlata, Whitfield, 6097.

Leptomeryx Leidy, Scott, 4884.

Leptomeryx, Scott, 4865.

mainmifer Cope, Ami, 84,

Leptomitus zitteli Walcott, Rauff, 4548. Lepton Turton, Dall, 1281.

(?) alabamensis n. sp., Aldrich, 74. Leptophractus, Case, 767.

Leptophyllia agassizi n. sp., Vaughau, 5734. Leptoplastus spinosus n. sp., Matthew, 3751.

Leptopora gorbyi n. sp., Miller, 3992.

Leptopoterion, James, 2881.

Leptoreodon Wortman, Scott. 4884. marshi n. gen. et sp., Wortman, 6493.

Leptosolen otternsis n. sp., Cragin, 1116. Leptostrobus (?) alatus Ward n. sp., Fontaine, 1850.

longifolius, Dawson, 1434. longifolius Fontaine, Fontaine, 1850. ? sp. Fontaine, Ward, 5857.

Leptostrophia magnifica Hall, Clarke, 971. oriskania, n. sp., Clarke, 971.

Leptostyrax n. gcn., Williston, 6259.

Leptotragulus Scott and Osborn, Scott, 4883, 4884. Leptotrypa, Simpson, 4983.

Leptotrypa Ulrich, Ulrich, 5537. acervulosa n. sp., Ulrich, 5537. claviformis n. sp., Ulrich, 5537. hexagonalis Ulrich, 5537. informis n. sp., Ulrich, 5537.

Lepus sylvaticus Bachm., Cope, 1104. Lernædiscus porcellanæ, Beecher, 366. Leuciscus turneri n. sp., Lucas, 3589. Leucozoni biplicata, Harris, 2310.

Leuroceras, Hyatt, 2816.

Levibuccinum lineatum Con., Harris, 2310,

Levifusus branneri n. sp., Harris, 2305, 2311. dolei n. sp., Harris, 2310.

hubbardi n. sp., Harris, 2310. indentus n. sp., Harris, 2315, 2316.

pagoda, Aldrich, 74. pagoda var., Harris, 2310.

pagoda Heilp., Harris, 2315, 2316. supraplanus n. sp., Harris, 2315, 2316.

suteri n. sp., Aldrich, 73. suteri, Harris, 2310.

trabcatoides n. sp., Harris, 2307. trabeatus Con., Aldrich, 73. trabeatus Con., Harris, 2311, 2316.

trabeatus Con, var.?, Harris, 2315, trabcatus var., Harris, 2310.

Lichas bicornis n. sp., Ulrich, 5933. breviceps Foerste, 1835.

byrnesanus n. sp., Miller and Gurley,

hanoverensis n. sp., Miller and Gurley, 3997a

Genera and species described-Continued. Lichas ef. pustulosus Hall, Clarke, 971.

(Hoplolichas) robbinsi n. sp., Ulrich, 5933.

(Terataspis) n. sp., Whiteaves, 6074. (Terataspis) grandis Hall, Whitfield, 6105.

Lichenalia Hall, Grabau, 2086.

Lichenalia Simpson, 4983.

cf. crassa Hall, Clarke, 971. stellata Hall, Grabau, 2086.

Lichenaria minor n. sp. (Ulrich), Winchell and Schnehert, 6318.

typa n. gen et sp., Winchell and Seluchert, 6318.

typa W. and S., Sardeson, 4810.

Lima (Bruguière) Cuvier, Dall, 1272.

generosa n. sp., Cragin, 1115.

lata?, n. sp., Logan, 3559.

multilineata n. sp., Stanton, 5199. multiradiata Gabb, Stanton, 5197.

ozarkana n. sp., Harris, 2313.

pelagica Mort., Harris, 2315. retifera Shumard, Keyes, 3062.

semilævis n. sp., Cragin, 1115. utahensis, Stanton, Herrick and Johnson,

utaliensis n. sp., Stanton, 5191.

(Ctenoides) scabra Born, Dall, 1272. tenera Sowerby, Dall, 1272.

(Lima) caloosana n. sp., Dall, 1272. smirna n. sp., Dall, 1272.

vicksburgiana n. sp., Dall, 1272. tampaensis n. sp., Dall, 1272.

var. costulata n. sp., Dall, 1272. lum) ealoosana n. sp., Dall, 1272. carolinensis n. sp., Dall, 1272.

Limæa solida n. sp., Dall, 1272.

Limalophus n. gen., Seudder, 4890.

compositus, Seudder, 4890.

contractus, Scudder, 4890.

Limnaca desidiosa Say, Baker, 217.

Limnaida hermanni, Beecher, 366.

Limnea contracosta, n. sp., Cooper, 1071. nitidula Meek, White, 6036.

Limnocema n. gen., Scudder, 4894.

lutescens, Scudder, 4894.

marcescens, Scudder, 4894.

mortoni, Scudder, 4894. styx, Seudder, 4894.

Limnoeyon riparius, Marsh, 3719.

Limnohyops fontinalis, Earle, 1590.

laticeps, Earle, 1590. Limnophila rogersii, Scudder, 4894.

ruinarum, Scudder, 4894.

strigosa, Scudder, 4894. vasta, Seudder, 4894.

Limnopus vagus n. gen. et sp., Marsh, 3686. Limonius impunctus, Scudder, 4896.

Limopsis Sassi, Dall, 1272.

subangularis n. sp., Guppy and Dall, 2214. subimbricatus n. sp., Cragin, 1116.

Limulus polyphemus, Beecher, 366. polyphemus, Packard, 4230.

Lindera masoni n. sp., Lesquereux, 3470. venusta n. sp., Lesquereux, 3470.

Lindstræmella n. subgen., Hall and Clarke, 2260.

Paleontology-Continued.

Genera and species described—Continued.

Lindstræmella aspidium n. gen. et sp., Hall and Clarke, 2260.

aspidium, Hall and Clarke, 2268.

Linearia metastriata, Harris, 2315.

Lingula Bruguière, Grabau, 2086.

Lingula Bruguière, Hall and Clarke, 2260.

Lingula Bruguière, Winchell and Schuchert, 6319.

compta, Hall and Clarke, 2268.

antiqua, James, 2893.

beltrami n. sp., Winchell and Schuchert,

cf. billingsiana Whiteaves, Matthew, 3751. canadensis Billings?, Winchell and Schuchert, 6319.

elathrata n. sp., Winchell and Schuchert, 6319.

cobourgensis Billings?, Winchell and Schuchert, 6319.

compta n. sp., Hall and Clarke, 2260.

delia Hall, Grabau, 2086.

elderi Whitfield, Winchelland Schuchert,

elongata Hall, Whiteaves, 6087.

eva Billings, Winehell and Schuchert,

flabellula u. sp., Hall and Clarke, 2260.

gorbyi n. sp., Miller, 3995. howleyi n. sp., Matthew, 3767.

indianensis u. sp., Miller and Gurley, 3997a.

ef. iole Billings, Cleland, 1012.

iowensis Owen, Whiteaves, 6087.

iowensis Owen, Winchell and Schuchert, 6319

ligea (?), Whitfield, 6099.

lingulata n. sp., Hall and Clarke, 2260.

lingulata, Hall and Clarke, 2268.

manni, Whitfield, 6099.

membranacea Win., Weller, 6006.

modesta Ulrich, Winehell and Schuchert, 6319.

mytiloides Sowerby?, Girty, 2037.

cf., oblata, Hall and Clarke, 976. obtusa Hall, Whiteaves, 6087.

paracletus n. sp., Hall and Clarke, 2260, 2268.

parrishi n. sp., Miller, 3995.

philomela Billings, Winehell and Schuchert, 6319.

cf. rectilatera Hall, Clarke, 971.

riciniformis Hall, Winehell and Schuchert, 6319.

var. galeusis W. and S., Winchell and Schuchert, 6298, 6319.

scutella n. sp., Hall and Clarke, 2260, 2268. sedaliensis n. sp., Miller, 3995.

shumardi n. sp., Cragin, 1115.

spatulata Vanuxem, Grabau, 2086.

tæniola, Hall and Clarke, 2268.

umbonata Cox, Keyes, 3062.

vanhornii, Miller, 3995.

(Glossini) deflecta, Winchell and Schuchert, 6298.

(Glossina) flabellula, Hall and Clarke, 2268.

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 Genera and species described—Continued.
   Lingula (Glossina) hurlburti N. H. Winchell,
     Winchell and Schuchert, 6319.
           deflecta W. and S., Winchell and
             Schuchert, 6319.
       (Glossina) leana Hall, Grabau, 2086.
       (Lingulipora) williamsana n. sp., Girty,
   Lingulasma Ulrich, Hall and Clarke, 2260.
   Lingulasma Ulrich, Winchell, and Schuchert,
       galenensis, Winchell and Schuchert, 6298,
   Lingulella Salter, Hall and Clarke, 2260.
       cuneata n. sp., Matthew, 3751.
       (?) inflata, Matthew, 3761.
           var. ovalis n. var., Matthew, 3761.
       lamborni Meek, Keyes, 3062.
       martinensis, Matthew, 3761.
       cf. granvillensis Walcott, Matthew, 3761.
       roberti n. sp., Matthew, 3767.
       rogersi Walcott, Grabau, 2092.
       selwyni n. sp., Matthew, 3767.
       subgenus of Obolus, Walcott, 5813.
   Lingulepis Hall, Hall and Clarke, 2260.
       acuminata Conrad, Matthew, 3767.
       meeki n. sp., Walcott, 5807.
   Lingulina carinata d'Orbigny, Bagg, 150.
   Lingulipora n. subgen., Girty, 2035.
   Lingulobolus n. gen., Matthew, 3767.
       affinis (Billings), Grabau, 2092.
       affinis, Bill. sp., Matthew, 3767.
          var. cuneata, Matthew, 3767.
   Lingulops Hall, Hall and Clarke, 2260.
       derbyi, n. sp., Clarke, 976.
       granti, n. sp., Hall and Clarke, 2260, 2268.
   Linnarssonia Walcott, Hall and Clarke, 2260.
       belti Dav. mut. magna n. mut., Matthew,
         3776.
       transvera Hartt, Matthew, 3761.
   Linthia tumidula Clark, Clark, 892.
   Linuparus A. White, Woodward, 6442.
      atavus n. sp., Ortmann, 4156.
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vancouverensis Whiteaves sp., Woodward, 6442.
(Podarates) vancouverensis Whiteaves sp., Woodward, 6442.
canadensis Whiteaves sp., Woodward, 6442.
Liochlamys bulbosa Heilprin, Dall, 1259.
Liopeplum Dall, Dall, 1259.
spillmani Dall, Dall, 1259.
subjugosum Dall, Dall, 1259.

Liopistha concentrica Stanton, Herrick and Johnson, 2465. (Psilomya) concentrica n. sp., Stanton,

Psilomya) concentrica n. sp., Stanton, 5191. elongata Stanton, Herrick and John-

son, 2465. elongata, n. sp., Stanton, 5191. meeki White, Herrick and Johnson,

meeki White, Stanton, 5191. Lioplacodes veternus Meek, Logan, 3559. Lioplax floridana n. sp., Dall, 1269. ? endlichi White, White, 6036.

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Genera and species described—Continued, Liopteria browni n. sp., Clarke, 976. sawkinsi n. sp., Clarke, 976. speciosa n. sp., Miller and Gurley, 4002. subovata n. sp., Miller and Gurley, 4002. Linopteris gilkersonensis n. sp., White, 6050. Liorhynchus Hall, Hall and Clarke, 2261a. haguei n. sp., Girty, 2038.

lesleyi n. sp., Hall and Clarke, 2261a, 2263 2268.

robustus, Hall and Clarke, 6268.

Liospira n. gen., Ulrich and Scofield, 5541. abrupta n. sp., Ulrich and Scofield, 5541. americana Billings, Ulrich and Scofield, 5541.

angulata n. sp., Ulrich and Scofield, 5541. angustata n. sp., Ulrich and Scofield, 5541. decipiens n. sp., Ulrich and Scofield, 5541. micula Hall, Ulrich and Scofield, 5541.

(?) mundula n. sp., Ulrich and Scofield, 5541.

obtusa n. sp., Ulrich and Scoffeld, 5541. persimilis n. sp., Ulrich and Scoffeld, 5541. progne Billings, Ulrich and Scoffeld, 5541. rugata n. sp., Ulrich and Scoffeld, 5541. subconcava n. sp., Ulrich and Scoffeld, 5541.

vitruvia Billings, Ulrich and Scofield, 5541. Liostracus? jerseyensis n. sp., Weller, 6004. onangondianus, Beecher, 366. parvus n. sp., Walcott, 5816.

validus n. sp., Matthew, 3776. Liothyrina Oehlert, Hall and Clarke, 2264. Liotia granulata Lea, Harris, 2316.

> veresimilis n. sp., Guppy and Dall, 2214. (Arene) agenea n. sp., Dall, 1259. coronata n. sp., Dall, 1259. melium n. sp., Dall, 1259. paramata n. sp., Dall, 1259.

solariella Heilprin, Dall, 1259. Liquidambar europæum Al. Br., Newberry, 4083.

integrifolium Lesq., Lesquereux, 3478. obtusilobatus (Heer) Hollick, Newberry, 4083.

Liriodendron, Holliek, 2682.

Liriodendron, Holm, 2713.

Liriodendron Linnæus, Newberry, 4080. acuminatum Lesq., Lesquereux, 3470. acuminatum var. bilobatum n. var., Lesquereux, 3470.

alatum Newb., MSS., Hollick, Knowlton, 3264.

giganteum Lesq., Lesquereux, 3470. var. cruciforme Lesq., Lesquereux, 3470.

intermedium Lesq., Lesquereux, 3470. laramiense Ward, Knowlton, 3264. meekii (Heer), Newberry, 4083. obcordatum Lesq., Lesquereux, 3470. oblongifolium Newb., Newberry, 4080. pinnatifidum Lesq., Lesquereux, 3470. prætulipiferum n. sp., Dawson, 239. primævum Newb., Lesquereux, 3470. primævum Newb., Newberry, 4083. quereifolium Newb., Newberry, 4080.

Genera and species described—Continued.

Liriodendron semialatum Lesq., Lesquereux, 3470.

snowii n. sp., Lesquereux, 3470. succedens n. sp., Dawson, 1436. wellingtonii n. sp., Lesquereux, 3470.

Liriodendropsis n. gen., Newberry, 4080. angustifolia n. sp., Newberry, 4080. simplex Newb., Newberry, 4080.

Liropecten estrellanus Conrad, Cooper, 1071.

Lispoceras, Hyatt, 2816. rotundum n.sp., Hyatt, 2816.

trivolve n. sp., Hyatt, 2816.

Lispodesthes nuptialis White, Stanton, 5191. Lissopleura n. gen., Whitfield, 6103.

Lithapium, Matthew, G. F., 3760.

Lithocharis scottii n. sp., Scudder, 4900.

Lithocoryne gravis n. sp., Scudder, 4900. Lithodomus claibornensis Con., Aldrich, 73. gainesensis n. sp., Harris, 2310.

Lithophaga Bolten, Dall, 1272.

antillarum d'Orbigny, Dall, 1272. (?) batesvillensis n. sp., Weller, 5986. nigra d'Orbigny, Dall, 1272.

nuda n. sp., Dall, 1272.

subalveata, Whitfield, 6101. sp.?, Keyes, 3062.

(Diverus) bisulcata d'Orbigny, Dall, 1272. (Myoforceps) aristata Dillwyn, Dall, 1272.

Lithophthorus n. gen., Scudder, 4890. rugosicollis, Scudder, 4890.

Lithostrotion macounii n. sp., Lambe, 3375. mamillare Castelnau, Keyes, 3061. sp., Girty, 2038.

Litoceras biangulatum n. sp., Hyatt, 2819. hercules, Hyatt, 2819. insolens (?), Hyatt, 2819. potosina n. sp., Aguilera, 57. versutum Billings, Whiteaves, 6089.

whiteavesi, Hyatt, 2819. Litsea cretacea n. sp., Lesquereux, 3470. cuneata n. sp., Knowlton, 3255.

falcifolia n. sp., Lesquereux, 3470. Littorina subobesa n. sp., Cooper, 1072.

Lituites, Hyatt, 2819.

? complanatus Shumard, Keyes, 3062. robertsoni, Whitfield, 6102. undatus yar. occidentalis, Whitfield, 6102.

Litzea weediana n.sp., Knowlton, 3222. Lobocrinus W. and Sp. (nov. gen.), Wachs-

muth and Springer, 5765a.

æquibrachiatus (McChesney), Wachs-

muth and Springer, 5765a.

equibrachiatus var. asteriscus (Meek and Worthen) Wachsmuth and Springer,

? hageri (McChesney), Wachsmuth and Springer, 5765a.

inflatus (Rowley and Hare), Wachsmuth and Springer, 5765a.

longirostris (Hall), Wachsmuth and Springer, 5765a.

nashvillæ (Trocst), Wachsmuth and Springer, 5765a.

nashvillæ var. subtractus (White), Wachsmuth and Springer, 5765a.

pyriformis (Shum.), Wachsmuth and Springer, 5765a.

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Genera and species described—Continued.

Lobocrinus robustus W. and Sp. (nov. spec.), Wachsmuth and Springer, 5765a.

spiniferus W. and Sp. (nov. spec.), Wachsmuth and Springer, 5765a.

yandelli (Shumard), Wachsmuth and Springer, 5765a.

Loculipora Hall, Grabau, 2086.

Loculipora Simpson, 4983.

perforata Hall, Grabau, 2086.

Lonatia saportanea Lesq., Lesquereux, 3470. Lonchocarpus novæ-cæsareæ n.sp., Hollick,

Lonchopteris oblonga (Emmons) Fontaine, Ward. 5857.

Lonsdaleia pictoense Billings sp., Lambe, 3375.

Lophiodon Cuvier, Osborn and Wortman, 4192.

Lopholasma, n. gen., Simpson, 4984.

Lophophyllum proliferum (McChesney), Keyes, 3061.

Lophospira Whitfield, Ulrich and Scofield, 5541.

abnormis n. sp., Ulrich and Scofield, 5541. acuminata n. sp., Ulrich and Scofield, 5541. ampla n. sp., Ulrich and Scofield, 5541. augustina Billings, Ulrich and Scofield.

augustina Billings, Ulrich and Scofield, 5541.

var. minnesotenis n. var., Ulrich and Scofield, 5541.

bicincta Hall, Ulrich and Scofield, 5541. bowdeni Safford, Ulrich and Scofield, 5541. centralis n. sp., Ulrich and Scofield, 5541. concinnula n. sp., Ulrich and Scofield, 5541.

conoidea n. sp., Ulrich and Scoffeld, 5541. conradana n. sp., Ulrich and Scoffeld, 5541. decursa n. sp., Ulrich and Scoffeld, 5541. elevata n. sp., Ulrich and Scoffeld, 5541. fillmorensis n. sp., Ulrich and Scoffeld,

5541. helicteres var. wisconsinensis n. var., Ulrich and Scofield, 5541.

humilis n. sp., Ulrich and Scofield, 5541. medialis n. sp., Ulrich and Scofield, 5541. var. burginensis n. var., Ulrich and

Scofield, 5541.

multigruma Miller, Ulrich and Scofield,
5541

obliqua n. sp., Ulrich and Scofield, 5541. oweni n. sp., Ulrich and Scofield, 5541. peracuta n. sp., Ulrich and Scofield, 5541. perangulata Hall, Ulrich and Scofield,

perforata n. sp., Ulrich and Scoffeld, 5541. perlamellosa n. sp., Ulrich and Scoffeld, 5541.

procera n. sp., Ulrich and Scofield, 5541. producta n. sp., Ulrich and Scofield, 5541. pulchella n. sp., Ulrich and Scofield, 5541. quadrisulcata n. sp., Ulrich and Scofield, 5541

saffordi n. sp., Ulrich and Scofield, 5541. serrulata Salter, Ulrich and Scofield, 5541. spironema n. sp., Ulrich and Scofield, 5541.

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Lophospira sumnerensis Safford, Ulrich and Scofield, 5541.

tenuistriata n. sp., Ulrich and Scofield 5541.

(? Scelva) (?) knoxvillensis n. sp., Ulrich and Scofield, 5541.

lirata n. sp., Ulrich and Scofield, 5541 (?) notabilis n. sp., Ulrich and Sco-

(?) trochonemoides n. sp., Ulrieh and Scofield, 5541.

Loricera glacialis, Seudder, 4896.

? lutosa, Scudder, 4896.

field, 5541.

Loxonema Phillips, Grabau, 2086.

altivolvis n. sp., Whiteaves, 6074.

attenuatum Hall?, Girty, 2037.

boydii Hall, Whiteaves, 6080.

breviculum Hall, Grabau, 2086. cingulatum n. sp., Whiteaves, 6074.

? coapta Hall, Grabau, 2086.

delicatum n. sp., Girty, 2038.

delphicola Hall, Grabau, 2086.

graeillimum n. sp., Whiteaves, 6074.

hamiltoniæ Hall, Grabau, 2086.

magnum Whitfield, var., Whiteaves, 6080. multicosta Meek and Worthen, Keyes,

oligospira Win., Weller, 6006.

parvulum, Whitfield, 6099.

plicatum, Whitfield, 6099. seitulum Meek and Worthen, Keyes, 3062.

shumardana (Win.), Weller, 6006.

tenuilineatum (Shumard), Keyes, 3062. winnipegense n. sp., Whiteaves, 6076.

winnipegense Whiteaves, Whiteaves, 6087.

(?) sp., Girty, 2038.

sp., Weller, 5994, 6006.

Loxoploeus solutus Whiteaves, Whiteaves,

Lucapina suffusa Reeve, Dall, 1259.

Lucifer, Beecher, 366.

Lueina acclinis (?), Whitfield, 6101.

anodonta, Sav. 4813. aquiana n. sp., Clark, 904, 906.

astartiformis n. sp., Aldrich, 74. astartiformis, Harris, 2313.

elaytonia n. sp., Harris, 2310.

coetol n. sp., Aguilera, 57.

colusaensis n. sp., Stanton, 5199.

contraeta, Say, 4813.

crenulata, Whitfield, 6101.

cribraria, Say, 4813.

dartoni n. sp., Clark, 904, 906.

divaricata, Say, 4813.

fortidentalis n. sp., Harris, 2310.

greggi n. sp., Harris, 2313, 2315. juvenis n. sp., Stanton, 5191.

livonensis (?) n. sp., Clarke, 946. occidentalis Morton, Logan, 3554.

ovalis n. sp., Stanton, 5199.

ozarkana n. sp., Harris, 2213, 2315.

pauperata n. sp., Guppy and Dall, 2214.

pomilia, Harris, 2313. potosina n. sp., Aguilera, 57.

subobliqua, Say, 4983.

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Genera and species described—Continued.

Lucina subundata H. and M., Stanton, 5191. symmetrica (?), Harris, 2313.

textilis n. sp., Guppy and Dall, 2214.

trisulcata, Whitfield, 6101.

turneri n. sp., Stanton, 5198.

uhleri n. sp., Clark, 904, 906.

ulrichi, Harris, 2313. whitei n. sp., Clark, 904, 906.

Lunatia concinna Hall and Meek (sp.), Stanton, 5191.

halli, Whitfield, 6097.

hornii Gabb, Stanton, 5198.

marylandica Conrad, Clarke, 906.

Lunulicardia Gray, Dall, 1281.

Lunulicardium Munster, Grabau, 2086.

curtum Hall, Grabau, 2086.

fragile Hall, Grabau, 2086.

grande n. sp., Miller and Gurley, 4002.

(??) lineolatum n. sp., Clarke, 946.

livoniæ n. sp., Clarke, 946.

retrorsum n. sp., Miller and Gurley, 4002.

Lutra rhoadsii n. sp., Cope, 1101, 1104. Lutraria Lamarck, Dall. 1272.

senna, James, 2894.

Lycophoria Lahusen, Hall and Clarke, 2261a,

Lycopodium lesquereuxiana n. sp., Knowlton, 3264.

Lycosaurus, Case, 768.

Lycllia Milne-Edwards and Haime, Lambe, 3374.

affinis Billings, Lambe, 3374.

americana Milne-Edwards and Haime, Lambe, 3374.

decipiens Rominger, Lambe, 3374.

exigua Billings (sp.), Lambe, 3374. superba Billings, Lambe, 3374.

Lygodium kaulfusii Heer, Knowlton, 3255,

kaulfussi Heer, Newberry, 4083.

neuropteroides Lesquereux, Dawson, 1448. Lynx calcaratus Cope, Cope, 1104.

Lyopora Nich, and Eth. jun., Lambe, 3374.

Lyra cumberland, Hall and Clarke, 2264.

Lyria costata Sowerby, Dall, 1259.

musicina Heilprin, Dall, 1259.

pulchella Sowerby, Dall, 1259.

wilcoxiana n. sp., Aldrich, 70. wilcoxiana, Harris, 2310.

Lyriocrinus Hall, Weller, 6002. melissa Hall, Weller, 6002.

Lyriopecten sp.?, Clarke, 971.

Lyrodesma Conrad, Ulrich, 5539.

acuminatum n. sp., Ulrich, 5539.

eannoncuse n. sp., Ulrich, 5539.

eonradi n. sp., Ulrich, 5535. grande n. sp., Ulrich, 5535.

inornatum n. sp., Ulrich, 5535. subplanum n. sp., Ulrich, 5535.

Lyrodictya Hall, Hall and Clarke, 2269, 2271. (?) burlingtonensis Hall (sp.), Hall and Clarke, 2269, 2271.

romingeri Hall, Hall and Clarke, 2269, 2271.

Lyropora, Simpson, 4983.

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Lyropora goldfussi Billings(sp.), Lambe, 3374. retrosa Meek and Worthen, Keyes, 3062.

Lyroporella, Simpson, 4983.

Lyroporidra n. gen., Simpson, 4983.

Lyroporina n. gen., Simpson, 4980.

Lyrosoma Conrad, Whitfield, 6101.

suleosa, Whitfield, 6101.

Lyrtoeeras batesi (Trask), Stanton, 5199. jnkesii Sharpe, Whiteaves, 6085.

Lysactinella n. gen., Girty, 2034.

Lysactinella Girty, Hall and Clarke, 2269, 2270.

gebhardi n. sp., Girty, 2034.

perelegans n. sp., Girty, 2034.

Lysorophus tricarinatus Cope, Case, 773.

Lytoeeras Suess, Smith, 5052.

alamedense n. sp., Smith, 5052.

Lyttonia Waagen, Hall and Clarke, 2261a, 2264.

Maeandrevia King, Hall and Clarke, 2264.

(Antiptychina Zittel), Hall and Clarke,

2264.
(Aulaeothyris Donville), Hall and Clarke,

2264. (Camerothyris Bittner), Hall and Clarke,

2264. (Epicyrta Deslongchamps), Hall and

Clarke, 2264.

(Eudesia King), Hall and Clarke, 2264. (Fimbriothyris Deslongchamps), Hall and Clarke, 2264.

(Mierothyris Deslongchamps), Hall and Clarke, 2264.

(Orthotoma Quenstedt), Hall and Clarke,

(Plesiothyris Douville), Hall and Clarke, 2264.

(Zeilleria Bayle), Hall and Clarke, 2264. Macelintockia cretacea Heer, Lesquereux, 3470

trinervis Heer, Dawson, 3470.

Machærodus Kaupp, Cope, 1104.

crassidens Cragin, Williston, 6228.

graeilis Cope, Cope, 1104.

Machirea (Leuseur) Woodward, Uhrich and

sachirea (Leuseur) Woodward, Ufrich and Scofield, 5541.

affinis Bill., Whitfield, 6106.

bigsbyi Hall, Ulrich and Seofield, 5541.

var. dixonensis n. var., Ulrich and Scofield, 5541.

bigsbyi, Whitfield, 6102.

erassa n. sp., Ulrich and Scofield, 5541.

var. maera n. var., Ulrich and Seofield, 5541.

depressa n. sp., Ulrich and Scofield, 5541. knoxvillensis n. sp., Ulrich and Scofield,

magna (Le Suenr), Keyes, 3062.

manitobensis, Whiteaves, 6076.

nitida n. sp., Ulrich and Scoffeld, 5541.

Maeluria (Maclurina) manitobensis Whiteaves, Whiteaves, 6087.

Maclurina n. gen., Ulrich and Scofield, 5541.

euneata Whitfield, Ulrich and Scofield, 5541.

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Genera and species described—Continued.

Maelurina manitobensis Whiteaves, Ulrich and Seofield, 5541.

subrotunda Whitfield, Ulrich and Scofield, 5541.

Macoma Leach, Dall, 1281.

alumensis n. sp., Dall, 1281.

balthica Linné, Dall, 1281.

calearea Gmelin, Dall, 1281.

(?) cathounensis n. sp., Dall, 1281.

eonradi n. sp., Dall, 1281.

eonstrieta Bruguiere, Dall, 1281.

irma n. sp., Dall, 1281.

kelseyi n. sp., Dall, 1281.

laxa n. sp., Dall, 1281.

lenis Conrad, Dall, 1281.

lyelli Dall, 1281.

tenta Say, Dall, 1281.

virginiana Conrad, Dall, 1281.

(Cymatoica) Vendryesi n. sp., Dall, 1281. (Psammacoma) aurora Hanley, Dall, 1281.

brevifrons Say, Dall, 1281.

? holmesii n. sp., Dall, 1281.

olivella n. sp., Dall, 1281.

? producta Conrad, Dall, 1281.

tageliformis n. sp., Dall, 1281. traeta n. sp., Dall, 1281.

(Rexithaerus) secta Conrad, Dall, 1281.

Macrepistius arenatus II. gen. et sp., Cope, 1093.

Maerocaris n. gen., Miller, 3995. gorbyi n. sp., Miller, 3995.

Macrochilina blairi n. sp., Miller, 3992.

pulchella n. sp., Whiteaves, 6074. Macrocrinus W. and Sp. (nov. gen.), Waehs-

muth and Springer, 5765a.
carica (Hall), Wachsmuth and Springer,

5765a. gemmiformis (Hall), Waehsmuth and

Springer, 5765. juenndus (M. and G.), Wachsmuth and Springer, 5765a.

springer, 5709a. konincki (Shuni.), Wachsmuth and

Springer, 5765a. laguneulns (Hall), Wachsmuth and Springer, 5765a.

verneuilianus (Shum.), Wachsmuth and Springer, 5765a.

Macrodon Lyeett, Grabau, 2086.

Macrodon Lyeett, Woods, 6431.

blairi n. sp., Miller and Gurley, 4002. cochlearis Win., Weller, 6006.

facetus n. sp., Miller and Gurley, 4002.

hamiltoniæ Hall, Grabau, 2086.

modesta (Win.), Weller, 6006.

obsoletus Meck, Keyes, 3062.

pettisensis n. sp., Miller and Gurley, 4002.

pygmæus n. sp., Whiteaves, 6074.

sangamonensis? Worthen, Keyes, 3062. tenuistriatus Meek and Worthen, Keyes,

sp., Weller, 5994.

Maeroheilus priseus, Whitfield, 6099. regularis, Whitfield, 6099.

subcorpulentus, Whitfield, 6099.

Maerochilina keyesi n. sp., Rowley, 4677a.

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   Macroehilina tantilla n. sp., Rowley, 4677a.
   Macron philadelphicus n. sp., Harris, 2316.
   Macronotella n. gen., Ulrich, 5540.
       seofieldi n. sp., Ulrich, 5540.
   Macropetalichthys, Eastman, 190.
   Macrorhoptus intutus, Scudder, 4890.
   Macrostylocrinus Hall, Weller, 6002.
       indianensis n. sp., Miller and Gurley,
       obconicus n. sp., Weller, 6002.
       semiradiatus (Hall), Weller, 6002.
       striatus Hall, Weller, 6002.
       subglobosus n. sp., Weller, 6002.
   Macrotæniopteris vancouverensis n. sp., Daw-
     son, 1436.
   Macrotæniopteris californica Fontaine, Ward,
     5857
       magnifolia Schimper, Ward, 5857,
       magnifolia (Rogers) Schimper, Ward, 5857.
       nervosa Fontaine, Ward, 5857.
   Maetra Lamarck, Dall, 1272.
   Maetra Linné, Dall, 1272.
       albirupina n. sp., Harris, 2305.
       antiqua n. sp., Cragin, 1116.
       antiqua, Stanton, 5197.
       bistriata Har., Harris, 2315.
       catilliformis Conrad, Dall, 1263,
       chipolana n. sp., Dall, 1272.
       clathrodon Lea, Dall, 1272.
       dolabriformis Conrad, Dall, 1263.
       emmonsii Meek, Logan, 3554.
       emmonsi Meek, Stanton, 5191.
       formosa, Meek, Herrick and Johnson, 2465.
       hemphillii n. sp., Dall, 1263.
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(Brachydontes) critinus Bolten, Dall, 1272.

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       lapenoticrei n. sp., Dall, 1259.
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(Holmia) broggeri Walcott, Grabau, 2092.

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(Hebertella) Hall, Winchell and Schuchert, 6319.

borealis Billings, Winchell and Schuchert, 6319. ? bellarugosa Conrad, Winchell and

Schuehert, 6319. daytonensis, Foerste, 1835.

fausta, Foerste, 1835.

(Orthis-Dinorthis) calligramma, Foerste.

(Plæsiomys) loricula n. sp., Hall and Clarke, 2260, 2268.

(Platystrophia) King, Winchell and Schuehert, 6319.

biforata, Foerste, 1835.

biforata Schlotheim sp., Winchell and Schuchert, 6319.

> var. crassa James, Winchell and Schuchert, 6319.

(Plectorthis) Hall, Winchell and Schuehert, 6319.

plieatella Hall, Winchell and Schuchert, 6319.

whitfieldi N. H. Winchell, Winchell and Schuchert, 6319.

(Rhipidomella) hybrida, Foerste, 1833. oweni n. sp., Hall and Clarke, 2260, 2268.

(Schizophoria) manitobensis (nom. prov.), Whiteaves, 6074.

seneeta n. sp., Hall and Clarke, 2260, 2268.

sp., Girty, 2039.

Orthoceras, Clarke, 940.

Orthoeeras, Breynius, Grabau, 2086.

Orthoeeras, Foerste, 1833.

Orthoeeras Hyatt, 2820.

albersi S. A. Miller, Miller and Faber, 3997. ef. amplicameratum Hall, 1847, Clarke, 953. anellus Conrad, 1843, Clarke, 953.

Genera and species described—Continued.
Orthoceras annulatum, var. americanum,
Whiteaves, 6080.

barquianum Win., Lane, 3400.
beauportense n. sp., Whiteaves, 6089.
beltramii n. sp., Clarke, 953.
bilineatum Hall, 1847, Clarke, 953.
caldwellensis n. sp., Miller and Gurley, 4002.

cf. catulus Bill., Matthew, 3746. chemungense Swallow, Weller, 5894. elinocameratum Win., Lane, 3400. colletti n. sp., Miller, 3995. constrictum Vanuxem, Grabau, 2086. cribrosum Geinitz, Miller, 3995. darwini Billings, Whiteaves, 6080. emaceratum Hall, Grabau, 2086. eriense Hall, Grabau, 2086. eurekensis (Walcott) (?) Weller, 5986. exile Hall, Grabau, 2086. fauslerensis, Keyes, 3105. fenestrulatum n. sp., Clarke, 946. franklineuse n. sp., Miller, 3995. geneva n. sp., Clarke, 946. gorbyi n. sp., Miller, 3995. hagersvillense n. sp., Whiteaves, 6089. harii n. sp., Miller, 3992. heterocinctum Win., Weller, 6006. incarceratum n. sp., Clarke, 946. inceptum var. acceleratum n. var., Foerste, 1835.

indianense Hall, Lane, 3400. indianense, Weller, 6006. junceum Hall, 1847, Clarke, 953. leseuri n. sp., Clarke, 953. ludlowense n. sp., Miller and Faber, 3997. multicameratum Emmons, 1842, Clarke, 953.

nicolleti n. sp., Clarke, 953. nuntium Hall, Grabau, 2086. nuntium, Whitfield, 6099. nuntoides n. sp., Clarke, 946. olorus Hall, 1877, Clarke, 953. ozarkensis Shumard, Keyes, 3062. perroti n. sp., Clarke, 953, planoconvexum, Whitfield, 6102. cf. priamus Bill., Matthew, 3746. cf. primigenium Vanuxem, Calvin, 684. primigenium Vanuxem, Cleland, 1012. rude Hall, Girty, 2037. scammoni McChesney, Whiteaves, 6080. selkirkensis Whiteaves, Whiteaves, 6087. sociale Hall, 1877, Clarke, 953. sociale, Whitfield, 6102. staffordensis n. sp., Clarke, 946. subulatum Hall, Grabau, 2086. telamon Hall, Grabau, 2086. tenuistriata Hall, Whiteaves, 6089. tenuistriatum Hall, 1847, Clarke, 953. walpolensem n. sp., Whiteaves, 6089. westoni n. sp., Whiteaves, 6089. whitei Win., Weller, 6006. winnipegense Whiteaves, Whiteaves, 6089. sp., Clarke, 976.

sp., Girty, 2039.

Paleontology-Continued.

Genera and species described—Continued.
Orthoceras (Actinoceras) clavatum, Foerste,
1835.

youngi, Foerste, 1835.

(Cycloceras) amycus, Foerste, 1835. inceptum, Foerste, 1835.

(Eu-Orthoceras) ignotum, Foerste, 1835. erraticum, Foerste, 1835. hanoverense, Foerste, 1835. virgulatum, Foerste, 1835.

(Spyroceras?) syproceroides n. sp., Foerste, 1835.

Orthodesma Hall and Whitfield, Ülrich, 5539. affine n. sp., Whiteaves, 6087. ashmani n. sp., Miller and Faber, 3997. eanaliculatum, Ulrich, 5539. 3ylindricum n. sp., Miller and Faber, 3996. cymbula n. sp., Miller and Faber, 3997. minnesotense n. sp., Ulrich, 5534. minnesotense Ulrich, Ulrich, 5539. mundum n. sp., Miller and Faber, 3994. parvum n. sp., Ulrich, 5535. saffordi n. sp., Ulrich, 5534. scaphula n. sp., Miller and Faber, 3997. schucherti n. sp., Willer, 5539. subangulatum n. sp., Ulrich, 5535. subnasutum Meek and Worthen, Ulrich, 5530.

Orthoncychia Hall, Keyes, 3062. acutirostre (Hall), Keyes, 3062. chesterense (Meek and Worthen), Keyes, 3062.

cyrtolites (McChesney), Keyes, 3062. formosum (Keyes), Keyes, 3062. spirale (Hall), Keyes, 3062. tortuosa Hall, Clarke, 971.

Orthonota Conrad, Grabau, 2086.
(?) parvula Hall, Grabau, 2086.
Orthopsis occidentalis n. sp., Cragin, 1115.
Orthorhynchula Hall, Hall and Clarke, 2261a,

Orthostrophia Hall, Hall and Clarke, 2260. strophomenoides Hall, Girty, 2037.

Orthotheca Novak, Matthew, 3788, 3790. bayonet, Matthew, 3790. corrugata n. sp., Matthew, 3788. cylindrica n. sp., Grabau, 2092. cylindrica Grabau, mss., Burr, 666. de geeri Holm, Matthew, 3751. emmonsi (Ford), Grabau, 2092. emmonsi Ford, Matthew, 3751. cf. emmonsi, Matthew, 3761. (?) foerstei n. sp., Grabau, 2092. pugio, Matthew, 3790. sica, Matthew, 3790. stiletto, Matthew, 3790.

Orthothetes Fischer de Waldheim, Grabau, 2086.

Orthothetes Fischer de Waldheim, Hall and Clarke, 2260.

arctostriatus Hall, Grabau, 2086. becraftensis n. sp., Clarke, 971. bellulus n. sp., Clarke, 946. chemungensis (Conrad) Hall and Clarke, Girty, 2039.

chemungensis var., Girty, 2039.

Genera and species described—Continued.
Orthothetes chemungensis (Conrad), Weller,

desideratus n. sp., Hall and Clarke, 2260,

inæqnalis Hall, Girty, 2038.

inæqualis (Hall), Weller, 6006.

perversus Hall, Grabau, 2086.

Orthotichia, Hall and Clarke, 2260.

Orthotropia dolomitica, Hall and Clarke, 2268.

Ortonella hainesi, Ulrich, 5535. Oryctoblattina laqueata n. sp., Scudder, 4898.

Oryctocephalus Walcott, Matthew, 3788.

reynoldsi n. sp., Reed, 542. walkeri n. sp., Matthew, 3788.

Oryctogma n. gen., Scudder, 4894.

sackenii, Scudder, 4894.

Oryctomya n. subgen., Dall, 1277. Oryctorhinus n. gen., Scudder, 4890.

tenuirostris, Scudder, 4890.

Oryctoscirtetes protogæum, Scudder, 4900. Oscilla indisereta u. sp., Guppy and Dall, 2214.

Osmotherium Cope, Cope, 1104.

spelæum, Cope, 1101, 1104.

Osmunda affinis Lx., Kuowlton, 3255. dorosehkiana Göppert, Knowlton, 3232.

Osteocephalus, Case, 767.

Osteolepis, Case, 767.

Ostrakichnites carbonarius Dawson, Packard, 4229.

Ostrea Lamarek, Dall, 1272.

alabamiensis Lea, Dall, 1272.

alabamiensis Lea, Harris, 2313.

alifera n. sp., Cragin, 1115.

var. nov. pediformis, Cragin, 1115.

alternans n. sp., Cragin, 1115. anceps n. sp., Logan, 3554.

anomoides Meek, Stanton, 5191.

attenuata n. sp., Logan, 3557.

bella Con., Cragin, 1115. bellaplicata Shum., Cragin, 1115.

beloiti n. sp., Logan, 3555.

camelina n. sp., Cragin, 1115.

canonensis n. sp., Logan, 3557.

carica n. sp., Cragin, 1115.

carolinensis Conrad, Dall, 1272.

comoensis n. sp., Logan, 3559.

compressirostra Say, Clark, 906.

compressirostra Say, Dall, 1272.

compressirostra, Harris, 2313.

compressirostra, Say, 4983.

congesta Conrad, Logan, 3554, 3557.

congesta Conrad, Stanton, 5191.

convexa, Say, 4983.

erenula n. sp., Logan, 3557.

crennlimarginata Gabb, Dall, 1272.

crenulimarginata, Harris, 2310, 2315.

crenulimargo Roem., Cragin, 1115.

var. nov. stonewallensis, Cragin, 1115. cretacea Morton, Aldrich, 73. densa n. sp., Logan, 3559.

diluviana Linn, Cragin, 1115.

exogyroidea n. sp., Logan, 3557.

falco, n. sp., Dall, 1269.

falco Dall, 1272.

franklini Coq., Cragin, 1115.

Paleontology-Continued.

Genera and species described—Continued.

Ostrea franklini, Coquand?, Herrick and
Johnson, 2465.

franklini ragsdalei n. var., Hill, 2539.

georgiana Conrad, Dall, 1272.

glabra, White, Herrick and Johnson, 2465.

haitensis Sowerby, Dall, 1272.

haydeni n. sp., White, 6036.

incurva n. sp., Logan, 3557.

jewellensis n. sp., Logan, 3557.

johnsoni Aldrich, Dall, 1272.

kansasensis n. sp., Logan, 3557.

larva, Harris, 2315.

lata n. sp., Logan, 3557.

lceii n. sp., Logan, 3557. lugubris Con., Cragin, 1115.

Ingubris Conrad, Logan, 3554.

lugubris Conrad, Stanton, 5191.

lyoni Shum., Cragin, 1115.

malachitensis n. sp., Stanton, 5191.

megodon, Dall, 1272.

munsoni n. sp., Hill, 2540. pererassa Conrad, Dall, 1272.

percrassa, Whitfield, 6101.

perversa n. sp., Cragin, 1115.

plumosa Mort., Cragin, 1115.

plumosa, Harris, 2315.

podagrina n. sp., Dall, 1269, 1272. præ-compressirostra n. sp., Harris, 2305.

pulaskensis Harris, Dall, 1272.

pulaskensis, Harris, 2310, 2315.

prudentia White, Stanton, 5191.

sculpturata Conrad, Dall, 1272.

sellæformis Conrad, Clark, 906.

sellæformis Conrad, Dall, 1272.

sellæformis Conrad, Harris, 2313.

soleniseus, Stanton, 5191.

soleniscus Mk., Cragin, 1115. strigilecula White, Logan, 3559.

strigilecula White, Stanton, 5206.

strighteena white, Sainton, 520

subovata Shum., Cragin, 1115.

subspatulata Forbes, Cragin, 1115.

thirsæ Gabb, Dall, 1272. thirsæ, Harris, 2313, 2315.

trigonalis Dall, 1272

var. sylværupis, Harris, 2313.

translucida M. and H., Herrick and Johnson, 2465.

uniformis Mcek, Stanton, 5191.

vicksburgensis Conrad, Dall, 1272.

virginiana, Whitfield, 6101. var. procyon, Whitfield, 6101.

virginica Gmelin, Dall, 1272.

welleri n. sp., Logan, 3557.

willistoni n. sp., Logan, 3557.

(Alectronta) larva Lamarck, Logan, 3554. (Gryphæostrea) subeversa Conrad, Dall,

1272. sp., Clark, 906.

sp., Herrick and Johnson, 2465.

sp., Stanton, 5199.

Otiorhynchites absentivus, Seudder, 4890. commutatus, Scudder, 4890.

fossilis, Scudder, 4890.

tysoni, Scudder, 4890.

Otiorhynchus flacens, Scudder, 4890.

Genera and species described—Continued. Otiorhynchus subterastus, Seudder, 4890.

Otocœlus testudineus Cope, Cope, 1102. Otoliths, Clark, 906.

Otozamites carolinensis Fontaine, Ward, 5857. Ottelia americana Lx., Knowlton, 3264.

Ovula (Transovula) multicarinata n. sp., Dall, 1259.

Owenella n. gen., Ulrich and Scofield, 5541. antiquata Whitfield sp., Ulrich and Scofield, 5541.

Oxyacodon n. gen., Osborn and Earle, 4191. apiculatus п. sp., Osborn and Earle, 4191. Oxyana forcipata Cope, Osborn and Wortman, 4180.

huerfanensis n. sp., Osborn, 4193a. lupina, Osborn, 4222.

lupina Cope, Wortman, 6495.

Oxyænodon dysodus n. gen. et sp., Wortman, 6495.

lupina Cope, Osborn and Wortman, 4180. Oxyclænus (Cope) Scott, Matthew, 3801. cuspidatus Cope, Matthew, 3801. simplex (Cope), Matthew, 3801.

Oxydiscus Koken, Ulrich and Scofield, 5541. cristatus Safford, Ulrich and Scofield, 5541. subacutus n. sp., Ulrich and Scofield, 5541.

Oxyporus stiriacus, Scudder, 4896.

Oxyrhina hastalis Agassiz, Clark, 906. mantelli Agassiz, Eastman, 1595. mantelli, Williston, 6259.

Pachyæna gigantea n. sp., Osborn and Wortman, 4180.

intermedia n. sp., Wortman, 6495. ossifraga Cope, Osborn and Wortman,4180.

Pachydietya, Simpson, 4983. Pachydictya Ulrich, Ulrich, 5537.

acuta Hall, Ulrich, 5537. clegans n. sp., Ulrich, 5537. fimbriata Ulrich, Ulrich, 5537. foliata Ulrich, Ulrich, 5537. occidentalis Ulrich, Ulrich, 5537. pumila Ulrich, Ulrich, 5537.

triserialis Ulrich, Ulrich, 5537. Pachydiseus brazoensis Shum, Cragin, 1115.

complexus H. and M., Cragin, 1115. haradai Jimbo, Whiteaves, 6085. sp. ?, Whiteaves, 6084.

Pachylobius compressus, Scudder, 4890. deleticius, Scudder, 4890, deprædatus, Scudder, 4890.

Pachymelania n. gen., White, 6036. eleburni White, White, 6036. chrysalis Meck, White, 6036. chrysalloidea White, White, 6036. ? macilenta White, White, 6036. turricula n. sp., White, 6036.

Pachyphyllum sp., Girty, 2038.

Pachyrhizodus leptognathus n. sp., Stewart,

minimus, Stewart, 5242. velox n. sp., Stewart, 5240.

Pagiophyllum, Dawson, 1434, dubium n. sp., Fontaine, 1846, 1847. peregrinum(Lindley and Hutton) Schenk, Ward, 5857.

Paleontology-Continued.

Genera and species described—Continued. Pagiophyllum williamsonis (Brongniart) Fontaine, Ward, 5857.

Palæcis cavernosa n. sp., Miller, 3992.

obtusa (Meek and Worthen), Keyes, 3061. Palæacmæa? cingulata n. sp., Whiteaves, £074. Palæamæa Hall and Whitfield, Ulrich and Scofield, 5541.

humilis n. sp., Ulrich and Scoffeld, 5541. Palæanthus (Williamsonia) problematicus n. sp., Newberry, 4080.

Palæaspis (Claypole), Claypole, 983.

Palæastacus (?) ornatus Whiteaves, Woodward, 6442.

Palæaster Hall, James, 2896.

antiqua (Locke), James, 2896. antiqua (Troost), James, 2896. clarkanus S. A. Miller, James, 2896.

eucharis Hall, Cole, 1025. exculptus S. A. Miller, James, 2896. dubius Miller and Dyer, James, 2896.

dyeri Meek, James, 2896. finei Ulrich, James, 2896.

granulosus Hall, James, 2896.

incomptus Meek, James, 2896. jamesii Dana, James, 2896.

longibrachiatus S. A. Miller, James, 2896. magnificus S. A. Miller, James, 2896.

miamiensis S. A. Miller, James, 2896. shæfferi Hall, James, 2896.

simplex Miller and Dyer, James, 2896. speciosa (Miller and Dyer), James, 2896. spinulosus Miller and Dyer, James, 2896.

wyckoffi n. sp., Miller and Gurley, 4003. Palæchinus burlingtonensis Meek and Worthen, Keyes, 3077.

gigas Jackson, 2871.

gracilis Meek and Worthen, Keyes, 3077. Palæictops n. gen., Matthew, 3804.

Palæmon, Beecher, 366.

Palæocampa (?) obscura n. sp., Matthew, 3759. Palæocassia laurinea n. sp., Lesquereux, 3470. Palæoconcha faberi S. A. Miller, Miller and Faber, 3997.

Palæocorystes harveyi n. sp., Woodward, 6440. Palæoctonus dumblianus Cope n. sp., Cope, 1087.

orthodon Cope n. sp., Cope, 1087.

Palæolagus intermedius n. sp., Matthew, 3804. Palæomeryx americanus n. sp., Douglas, 6540. madisonius n. sp., Douglas, 6540.

Palæomylus Woodward (1891), Eastman, 1601. greenei Eastman, 1601.

predator n. sp., Eastman, 1601. Palæoneilo Hall, Grabau, 2086.

constricta (Conrad), Grabau, 2086. constricta (Conrad)?, Weller, 5994. emarginata (Conrad), Grabau, 2086. fecunda Hall, Grabau, 2086. muta Hall, Grabau, 2086. orbignyi n. sp., Clarke, 976.

palæoneilo sp., Clarke, 976. pondiana Hartt and Rathbun, Clarke, 976.

similis, Whitfield, 6099. ? simplex Hartt and Rathbun, Clarke, 976.

sulcata Hartt and Rathbun, Clarke, 976.

Genera and species described—Continued.

Palæoneilo sulcatina, Lane, 3400, tenuistriata Hall, Grabau, 2076,

truncata Hall, Weller, 5994.

Palæonictis, Osborn, 4186a.

occidentalis n. sp., Osborn and Wortman, 4180.

Palæopalæmon Whitfield, Whitfield, 6099. newberryi, Whitfield, 6096, 6099.

Palæophonus arctus n. sp., Matthew. G. F.,

Palæophycus Hall, Duden, 1554. lineare n. sp., Duden, 1554. new-albanense n. sp., Duden, 1554.

Palæophyllum, James, 2881.

divaricans, James, 2881.

Palæopteria n. gen., Whiteaves, 6087. parvula n. sp., Whiteaves, 6087.

Palæoptysma n. gen., Scudder, 4895. venosa n. sp., Seudder, 4895.

Palæosaccus Hinde, Dawson, 1452. dawsoni Hinde, Dawson, 1452. dawsoni Hinde, Rauff, 4548.

Palæoscincus Leidy, Marsh, 3674.

Palæosolen occidentalis n. sp., Miller and Gurley, 4002.

Palæospondylus, Gill, 2023. gunni Traquair, Dean, 1476.

Palæosyopinæ, Osborn, 4190.

Paleosyops, Case, 769.

borealis, Earle, 1590. borealis Cope, Osborn and Wortman, 4180. boreatis Cope, Matthew, 3802. lævideus, Earle, 1590.

longirostris n. sp., Earle, 1590, megarhinus, Earle, 1590. minor, Earle, 1590.

paludosus, Earle, 1590.

Palæotetrix gilli n. geu. et sp., Shufeldt, 1960.

Palæotrochis, White, 6038.

Palæotrochis, Williams, 6187.

Palasterina (McCoy) Salter, James, 2896.

Palecphora sp., Scudder, 4895.

Paleohillia, Holm, 2714.

arkansana, n. gen. et sp., Knowlton, 3237. Paleopupa abrupta n. gen. et sp., Foerste,

1835. Paleschara Hall, Grabau, 2086. amplectens Hall, Grabau, 2086.

intercella Hall, Grabau, 2086. recticulata Hall, Grabau, 2086.

Palissva brevifolia (Emmons) Fontaine, Ward, 5857.

diffusa (Emmons) Fontaine, Ward, 5857. sphenolepis (Friedrich Braun) Brongniart, Ward, 5857.

Paliurus anceps n. sp., Lesquereux, 3470. columbi Heer, Knowlton, 3255, cretaceous n. sp., Lesquereux, 3470. integrifolius n. sp., Hollick, 2672. integrifolius Hollick (?), Hollick, 2698. membranaceus Lesq., Lesquereux, 3470. minimus n. sp., Knowlton, 3255. neilii n. sp., Dawson, 1436. obovatus n. sp., Lesquereux, 3470.

Paleontology-Continued.

Genera and species described—Continued. Paliurus ovalis Dawson, Lesquereux, 3470.

ovalis Dn., Newberry, 4080. zizyphoides? Lx., Knowlton, 3255.

Palosetrus n. gen., Scudder, 4889. oligocenus, Scudder, 4889.

Paltorhynchus n. gen., Scudder, 4889.

(?) bisulcatus, Scudder, 4889. narwhal, Scudder, 4889. rectirostris, Scudder, 4889.

Pauoethus, Case, 769.

Panomya Gray, Dall, 1272.

ampla, Dall, 1272.

norvegica Spengler, Dall, 1272.

Panopea Menard, Dall, 1272,

americana, Conrad, Dall. 1272. elongata Conrad, Clark, 906. floridana Heilprin, Dall, 1272. goldfussi Wagner, Dall, 1272.

goldfussi, Whitfield, 6101.

grenerosa Gould, Dall, 1272. porrectoides var. Ald., Harris, 2311.

reflexa, Say, 4813. reflexa Say, Dall, 1272.

whitfieldi Dall, Dall, 1272.

Pantasuarus striatus, Marsh, 3695.

Pantolambda, bathmodon Cope, Osborn, 4205. bathmodon, Cope, Osborn and Earle, 4191

cavirictus Cope, Osborn, 4205,

Pantylus coïcodus n. sp., Cope, 1097.

Papillina papillata Con., Harris, 2311.

staminea Con. var., Harris, 2311. Parabatrachus, Hay, 2381.

Parabolinella posthuma n. sp., Matthew,

Paracetus mediatlanticus n. sp., Cope, 1096. Paracyathus alternatus u. sp., Vaughan, 5735,

bellus n. sp., Vaughan, 5735. (?) clarkeanus n. sp., Vaughan, 5720, 5722. eylindricus n. sp., Vaughau, 5735. granulosus, n. sp., Vaughau, 5735.

rugosus n. sp., Vaughan, 5735, vaughani n sp., Gane, 1934.

Paraeyelas Hail, Grabau, 2086.

lirata (Conrad), Grabau, 2086. sp., Girty, 2039.

Paradoxides abenacus mut., Matthew, 3776. harlani Greeu, Grabau, 2092. harlani, James, 2893.

Parahyus aberrans n. sp., Marsh, 3690.

Paralegoceras Hyatt, Smith, 5046 iowense, Hyatt, 2816.

iowense Meek and Worthen, Smith, 5046.

Paralogus n. gen., Seudder, 4892.

æschnoides, Seudder, 4892. Parameryx Marsh, Scott, 4883.

lævis n. sp., Marsh, 3690.

(Leptotragulus) proavus, Wortman, 6493.

Paramya Conrad, Dall, 1272, subovata Conrad, Dall, 1272.

Paramys uintensis n. sp., Osborn, 4190.

Parapholas Conrad, Dall, 1272.

sphenoideus White, Logan, 3554. sphenoideus White, Stanton, 5191. sp., Logan, 3554.

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tuberosa (Beecher), Rauff, 4548.

Pauliella Munier Chalmas, Dall, 1281.

ulrichi n. sp., Rauff, 4548.

borealis Brongn., Fontaine, 1850. browniana, Dawson, 1434. clintoni Lx., White, 6050. dentata Brongn. (non Will.), White, 6040, gevleriana Nathorst, Fontaine, 1850. jenneyi n. sp., White, 6050. lesquereuxii D. W., White, 6049. oreopteridia (Schloth.) Stb., White, 6049. polymorpha Brongn., White, 6049. pseudovestita n. sp., White, 6050. richardsoni n. sp., White, 6049. serrulata Hartt, White, 6052. squamosa Lx., White, 6050. unita Brongn., White, 6049. vestita Lx., White, 6050. var. minor n. var., White, 6049. (Asterotheca) hemitelioides Brongn.?, (Asterotheca) lesquereuxii n. sp., White, (Asterotheca) squamosa Lx., White, 6048. (Cheilanthes) sepulta Newb., Newberry, (Dactylotheca) dentata Brongn. (non Will.), White, 6050. (Ptychocarpus) unita Brongn.?, White, Pccten Müller, Dall, 1222. alabamensis, Harris, 2310. californicus Gabb?, Stanton, 5199. centrotus (perplanus var.?), Dall, 1272. choctavensis II. sp., Aldrich, 73. clarkeanus n. sp., Aldrich, 73. clintonius, Say, 4813. complexicosta Gabb, Stanton, 5199. cretaceus n. sp., Dall, 1272. discus Conrad, Cooper, 1471. hericeus var. hindsii Carpenter, Dall, 1272, var. strategus Dall, Dall, 1272. inconspicuus n. sp., Cragin, 1118. jeffersonius, Say, 4813. jeffersonius var. septenarius Say, Dall, johnsoni n. sp., Clark, 904, 906. madisonius, Say, 4813. madisonius var. sayanus n.var., Dall, 1272. madisonius, Whitfield, 6101. rogersi n. sp., Clark, 904, 906. septenarius, Say, 4813. stantoni n. sp., Hill, 2539. vicenarius (?), Whitfield, 610I. (Æquipecten?) chipolanus n. sp., Dall, choctavensis Aldrich, Dall, 1272. glyptus Verrill, Dall, 1272. inæqualis Sowerby, Dall, 1272. oxygonum Sowerby, Dall, 1272. perplanus Morton, Dall, 1272. scissuratus n. sp., Dall, 1272. suwaneensis n. sp., Dall, 1272. thetidis Sowerby, Dall, 1272.

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Pecten (Amusium) Bolten, Dall, 1272.

(Amusium) ocalanus n. sp., Dall, 1272.

precursor n. sp., Dall, 1272.

(Chlamys) Bolten, Dall, 1272. altiplicatus Conrad, Dall, 1272.

alumensis n. sp., Dall, 1272. clarkeanus Aldrich, Dall, 1272. cocoanus n. sp., Dall, 1272. coccymclus n. sp., Dall, 1272. decemnarius Corrad, Dall, 1272.

deshayesii Lea, Dall, 1272. exasperatus Sowerby, Dall, 1272. fucanus n. sp., Dall, 1272.

greggi Harris, Dall, 1272. harrisii n. sp., Dall, 1272.

hericeus Gould, Dall, 1272. var. navarchus Dall, Dall, 1272.

indecisus n. sp., Dall, 1272. interlincatus Gabb, Dall, 1272. islandicus Müller, Dall, 1272. kneiskerni Conrad, Dall, 1272. latiauritus Conrad, Dall, 1272.

> var. fucicolus, Dall, 1272. var. monotimeris Conrad, Dall, 1272.

nuperus Conrad, Dall, 1272. opunta n. sp., Dall, 1272. ornatus Lamarck, Dall, 1272.

var. vaginulus Dall, Dall, 1272. parmeleei n. sp., Dall, 1272. tricenarius Conrad, Dall, 1272. wahtubbeanus n. sp., Dall, 1272.

var. wilcoxii n. sp., Dall, 1272. (Euvola) bowdenensis n. sp., Dall, 1272. (Hinnites) Defrance, Dall, 1272. (Lyropecten) Conrad, Dall, 1272.

(Nodipecten) anatipes Morton, Dall, 1272. antillarum Reclus, Dall, 1272. caloosuensis n. sp., Dall, 1272. condylomatus n. sp., Dall, 1272. nodosus Linné, Dall, 1272. peedeensis Tuomey and Holmes, Dall,

1272.

pulchricosta Meyer and Aldrich, Dall,
1272.

rogersi Conrad, Dall, 1272. subnodosus Sowerby, Dall, 1272.

(Patinopecten) Dall, Dall, 1272. bellus Conrad, Dall, 1272. biformis Conrad, Dall, 1272. burnsii n. sp., Dall, 1272. caurinus Gould, Dall, 1272. compactus n. sp., Dall, 1272. coosensis Shumard, Dall, 1272. diegensis, Dall, Dall, 1272. eugrammatus n. sp., Dall, 1272. expansus Dall, Dall, 1272. hemicyclicus Racencl, Dall, 1272. hemphillii Dall, Dall, 1272. humphreysii Conrad, Dall, 1272. poulsoni Morton, Dall, 1272. propatulus Conrad, Dall, 1272. ravemeli n. sp., Dall, 1272. soror Gabb, Dall, 1272. stearnsii, Dall, 1272.

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Pecten (Placopecten) Verrill, Dall, 1272.

(Placopecten) clintonius Say, Dall, 1272.

marylandicus Wagner, Dall, 1272. (Plagioctenium) excentricus Gabb, Dall,

1272. demiurgus n. sp., Dall, 1272. deserti Conrad, Dall, 1272.

deserti Conrad, Dall, 1272. gabbi Dall, Dall, 1272. gibbus Linne, Dall, 1272. var. amplicostatus Dall, Dall, 1272.

var. borealis, Dall, 1272. var. dislocatus Say, Dall, 1272. var. irradians Lamarck, Dall, 1272. var. nucleus Born, Dall, 1272.

magellanicus Emelin, Dall, 1272. oboreus Conrad, Dall, 1272.

var. comparilis Tuomey and Holmes, Dall, 1272. var. darlingtonensis Dall, 1272. var. cborcus Conrad, Dall, 1272.

var. senescens Dall, Dall, 1272. var. selescens Dall, Dall, 1272. var. solarioides Heilprin, Dall, 1272. var. yorkensis Conrad, Dall, 1272.

pablocnsis Conrad, Dall, 1272. subventricosus n. sp., Dall, 1272. virginianus Conrad, Dall, 1272.

(Propeamusium) alabamensis Aldrich, Dall, 185.

alaskensis Dall, Dall, 1272.

(Pseudamusium) H. and A. Adams, Dall, 1272.

ealvatus Morton, Dall, 1272. cerinus Conrad, Dall, 1272. frontalis Dall, 1272. guppyi n. sp., Dall, 1272.

guppyi n. sp., Dall, 1272. seintillatus Conrad, Dall, 1272. sp., Clark, 906.

sp., Harris, 2309. sp., Stanton, 5199.

sp.?, Whiteaves, 6084.

Peetuneulus, Harris, 2310. idoneus Conrad, Clark, 906.

idoneus, Harris, 2313.

(?) ovatus n. sp., Stanton, 5197. subovatus, Say, 4813.

veatchi (Gabb), Stanton, 5198.

var. major n. var., Stanton, 5198. virginiæ Wagner, Dall, 1273.

Pediacus periclitans n. sp., Scudder, 4900. Pedinopsis pondi Clark, Clark, 892.

Pediocætes lucasi n. sp., Shufeldt, 4960. nanus n. sp., Shufeldt, 4960.

Pelagiella n. gen., Matthew, 3761.

atlantoides n. sp., Matthew, 3761.

Pelion, Case, 767.

Pelycictis lobulatus n. gen. et sp., Copc, 1101. lobulatus Cope, Cope, 1104. Pelycorhamphus petortus n. gen. et sp., Cope,

Peneus Beecher, 366.

Pentaerinus astericus Meek and Hayden, Logan, 3559.

asteriscus Meek and Hayden, Clark, 892. asteriscus Meek and Hayden, Stanton, 5206.

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Pentacrinus bryani Gabb, Clark, 892.

caput, Say, 4813.

whitei Clark, Clark, 892.

Pentagonia Cozzens, Hall and Clarke, 2261, 2264. Pentamerella Hall, Hall and Clarke, 2261a,

2264.

Pentamerus Sowerby, Hall and Clarke, 2261a, 2264.

colletti n. sp., Miller, 3992.

corrugatus n. var., Weller and Davison, 5978.

ducussatus Whiteaves, Calvin, 689.

oblongus Sowerby var. maquoketa, Hall and Clarke, 2268.

var. subrectus, Hall and Clarke, 2268. oblongus Sowerby var., Weller and Davison, 5978.

oblongus var. bisinuatus, Whiteaves, 6080. oecidentalis Hall, Whiteaves, 6080.

pcs-ovis, Whitfield, 6099.

salinensis Swallow, Keyes, 3062.

Pentremiridea filosa Whiteaves (?), Weller, 5988

milwaukensis n. sp., Weller, 5988.

Pentremite, Say, 4813.

florealis Schloth., Say, 4813. globosa, Say, 4813.

pyriformis, Say, 4813.

Pentremites benedicti n. sp., Rowley, 4677. conoideus Hall, Keyes, 3061. elegans, Whitfield, 6099.

elongatus Shumard, Keyes, 3061.

Pephricaris horripilata n. sp., Clarke, 959. Peplorhina arctata Cope, Case, 773.

Percherus (Dicotyles) antiquus, Marsh, 3681. Peregrinella Oehlert, Hall and Clarke, 2264. Periechocrinus Austin, Wachsmuth and Springer, 5765a.

howardi (S. A. Miller), Wachsmuth and Springer, 5765a.

infelix (Winch, and Marcy), Waehsmuth and Springer, 5765a.

marcouanus (Winch, and Marcy), Wachsmuth and Springer, 5765a.

necis (Winch, and Marcy), Wachsmuth and Springer, 5765a.

ornatus (Hall), Wachsmuth and Springer, 5765a.

speciosus (Hall), Wachsmuth and Springer, 5765a.

tennessecnsis (Hall), Wachsmuth and Springer, 5765a.

? tenuidiscus (Hall), Wachsmuth and Springer, 5765a.

uniformis (S. A. Miller), Wachsmuth and Springer, 5765a.

? whitei (Hall), Wachsmuth and Springer, 5765a.

whitfieldi (Hall), Wachsmuth and Springer, 5765a.

Periechocrinus Austin, Weller, 6002.

chicagoensis n. sp., Weller, 6002.

egani (S. A. Miller), Weller, 6002.

infelix (Winchell and Marey), Weller, 6002.

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Periechocrinus marcouanus (W. and M.), Weller, 6002.

necis (Winchell and Marcy), Weller, 6002. uniformis (S. A. Miller), Weller, 6002. whitei, Whitfield, 6098.

Peripetoceras n. gen., Hyatt, 2819. frieslebeni Geinitz, Hyatt, 2819.

Periploma (?) alta, Whitfield, 6101. butleriana n. sp., Aldrich, 73. butleriana, Harris, 2313. collardi n. sp., Harris, 2307 sp., Harris, 2315.

Periptychus brabensis Cope, Osborn and Earle, 4191.

carinidens Copc, Matthew, 3801. coarctatus Cope, Matthew, 3801.

coarctatus Cope, Osborn and Earle, 4191. rhabdodon (Cope), Matthew, 3801. rhabdodon Cope, Osborn and Earle, 4191.

Perischodomus?? illinoisensis Worthen and Miller, Keyes, 3077.

Perisoonia lesquereuxii Knowlton, New-

berry, 4080. spatulata Hollick n. sp., Newberry, 4080. Perisphinctes alamitosensis n. sp., Aguilera,

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cf. balderus Oppel, Aguilera, 57.
colfaxi, Hyatt, 2818.

colubrinus (Reinecke), Aguilera, 57. cf. colubrinus (Reinecke), Aguilera, 57.

dolfusi n. sp., Aguilera, 57. felixi n. sp., Aguilera, 57. filiplex (?), Hyatt, 2818.

flexicostatus n. sp., Aguilera, 57.

lauri n. sp., Aguilera, 57. lenki n. sp., Aguilera, 57.

lenki n. sp., Aguilera, 57. mazapilensis n. sp., Aguilera, 57.

monserrati n. sp., Aguilera, 57. muhlbachi n. sp., Hyatt, 2818.

potosinus n. sp., Aguilera, 57.

pouzinensis Toucas, Aguilera, 57. cf. pouzinensis Toucas, Aguilera, 57.

skidegatensis Whiteaves, Whiteaves, 6095a.

transitorius? Oppel. Aguilera, 57. virgulatiformis n. sp., Hyatt, 2818. sp.?, Aguilera, 57.

Perissodon Conrad, Whitfield, 6101.

Perissolax blakei (Conrad), Stanton, 5198. dubia, Whitfield, 6097.

trivola, Whitf d, 6097.

Perna cornelliana n. sp., Harris, 2310. torta, Say, 4812.

torta, Whitfield, 6101.

Pernopecten cooperensis (Shumard), Weller, 5994.

??sp., Weller, 6006.

Peronosporites globosus n. sp., Simpson, 3570. minutus n. sp., Simpson, 3570. ramosus n. sp., Simpson, 3570.

Perplicaria Dall, Dall, 1259.

perplexa n. sp., Dall, 1259. Persea dilleri, Knowlton, 3235.

hayana n. sp., Lesquereux, 3470. leconteana Lesq., Lesquereux, 3470.

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Persea schimperi n. sp., Lesquereux, 3470. speciosa Heer, Hollick, 2708.

Persoonia lesquereuxii n. sp., Lesquereux,

Petaloerinus n. gen., Weller and Davison,

(?) major n. sp., Weller and Davison, 5978. mirabilis n. sp., Weller and Davison, 5978. Petalodus alleghaniensis Leidy, Eastman,

securiger n. sp., Hay, O. P., 2379.

Petalotrypa, Simpson, 4983.

Petersia medicinensis n. sp., Cragin, 1116.

Petigopora, Simpson, 4983.

gregaria Ulrich, James, 2896.

Petrablattina hastata, Scudder, 4898.

Petraster Billings, James, 2896.

wilberanus Meek, James, 2896. Petricola Lamarck, Dall, 1281.

lapicida Gmelin, Dall, 1281.

(Petrieolaria) calvertensis n. sp., Dall,

carolineusis Conrad, Dall, 1281. pholadiformis Lamarck, Dall, 1281.

(Rupellaria) harrisii n. sp., Dall, 1281. typica Jonas, Dall, 1281.

Pexidella Bittner, Hall and Clarke, 2264.

Phacelopora, Simpson, 4983. portenuis Ulrich, Keyes, 3062.

Phacoceras, Hyatt, 2816.

dumbli n. sp., Hay, 2389.

Phacops Emmrich, Grabau, 2086.

correlator n. sp., Clarke, 971.

hudsonicus Hall, Girty, 2086.

logani Hall, Clarke, 971.

rana (Green), Grabau, 2086. trisulcatus, Foerste, 1835.

Phænopora, Simpsoin, 4983.

Phænopora Hall, Ulrich, 5537.

incipiens n. sp., Ulrich, 5537. wilmingtonensis n. sp., Ulrich, 5537.

Phæthonides, Beecher, 354.

Phæthonides Angelin, Grabau, 2086.

gemmæus Hall and Clarke, Grabau, 2086,

Phalacrocorax macropus, Shufeldt, 4960.

Phalium aldrichi n. sp., Dall, 1259. globosum n. sp., Dall, 1259.

Phaneropleuron, Case, 766.

Phanerotinus paradoxus Winchell, Keyes,

paradoxus Win., Weller, 5994, 6006.

Pharella ? pealei, Meek, Herrick and Johnson, 2465.

? peali Meek, Stanton, 5191.

Phascolites formus n. sp., Lesquereux 3470.

Phasianella sp.?, Guppy and Datl, 2214.

Phegopteris grothiana Heer (?), Newberry, 4080.

Phenacodus primævus Cope, Osborn, 4198, 4204, 4207.

Phialocrinus barydactylus n. sp., Keyes, 3061. harii (Miller and Gurley), Keyes, 3061. magnifieus (Miller and Gurley), Keyes,

stillativus (White), Keyes, 3061.

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Philine alabamensis n. sp., Aldrich, 74. alabamensis Ald., Harris, 2316.

Phillipsastræa billingsi Calvin, Lambe, 3375. gigas, Calvin, 687.

verneuili Milne-Edwards and Haim?, Lambe, 3375.

Phillipsia cliftonensis Shumard, Smith, 5046. major Shum., Herrick and Johnson, 2465. major Shumard, Keyes, 3061.

meramecansis Shumard, Keyes, 3061.

portlockii Meck and Worthen, Keyes,

(Griffithides) ornata Vogdes, Smith, 5046. n. sp., Herrick and Johnson, 2465.

Philonthus abavus n. sp., Seudder, 4900.

horni n. sp., Scudder, 4900. invelatus n. sp., Scudder, 4900.

marcidulus n. sp., Scudder, 4900.

Phlaocyon n. gen., Matthew, 3804.

leucosteus n. sp., Matthew, 3804. leucosteus Matthew, Wortman and Matthew, 6496.

Phlyetalnaeanthus telleri, n. sp., Eastman,

Phænicopterus copei n. sp., Schufeldt, 4960.

Pholadella Hall, Grabau, 2086. parallela Hall, Clarke, 976.

radiata (Conrad), Grabau, 2086.

Pholadidea Goodall, Dall, 1272.

Pholadomya coloradoensis n. sp., Stanton, 5191.

coloradoensis Stanton, Herrick and Johnson, 2465.

inaequiplicata n. sp., Stanton, 5206,

ingens n. sp., Cragin, 1115.

kingi Meek, Stanton, 5206.

knowltoni n. sp., Hill, 2539.

lerehi n. sp., Hill, 2539.

marylandica Conrad, Clark, 906.

mauryi n. sp., Harris, 2310.

multilmeata, Hyatt, 2818.

nevadana, Hyatt, 2818.

papyracea, M. and H., Herrick and Johnson, 2465.

papyracea, M. and H., Stanton, 5191.

postextenta n. sp., Cragin, 1115.

ragsdalei n. sp., Cragin, 1118.

robusta n. sp., Logan, 3559.

subventricosa M. and H., Herrick and Johnson, 2465.

(Triplicosta) progressiva n. sp., Cooper,

Pholas (Linné) Lamarck, Dall, 1272.

alatoidea, Harris, 2313.

alatoideus, Harris, 2315.

ovalis Say, 4813.

(?) petrosa Conrad, Clark, 906.

producta Conrad, Dall, 1272.

(Thoyana) campechiensis Gmelin, Dall,

memmingeri, Tuomey and Holmes, Dall, 1272.

Pholidoeidaris meeki n. sp., Jackson, 2871. Pholidops Hall, Grabau, 2086.

Pholidops Hall, Hall and Clarke, 2260, 2268.

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Pholidops calceola n. sp., Hall and Clarke, 2260, 2268.

greenei n. sp., Miller and Gurley, 4003. hamiltoniæ Hall, Grabau, 2086.

linguloides Hall, Grabau, 2086.

patina n. sp., Hall and Clarke, 2260, 2268. terminalis Hall, Clarke, 971.

trentonensis Hall var. minor n. var., Winchell and Schuchert, 6319.

trombetana n. sp., Clarke, 976. sp.?, Clarke, 971.

Phombipora rhombifera Hall, Clarke, 971.

Phos albirupina n. sp., Harris, 2305.

fasciolatus n. sp., Guppy and Dall, 2214. gabbii n. sp., Guppy and Dall, 2214. galvestonensis n. sp., Harris, 1309.

hilli n. sp., Harris, 2305.

johnsoni n. sp., Vaughan, 5722.

metuloides n. sp., Guppy and Dall, 2214. (Strongylocera) ehipolanus n. sp., Guppy and Dall, 2214.

sp. undet., Dall, 1259.

Phosphorosaurus, Williston, 6245.

Phractopora, Simpson, 4983.

Phragmites aquehongensis n. sp., Hollick, 2691.

cretaceus Lesq., Lesquereux, 3470. falcata n. sp., Knowlton, 3255. ? latissima n. sp., Knowlton, 3255.

sp. (?) Newberry, 4083. Phragmoeeras expansum Win., Weller, 6006. heetor Billings, Whiteaves, 6080. missouriense n. sp., Miller, 3992.

Phragmodietya Hall, Hall and Clarke, 2269,

catelliformis Whitfield (sp.), Hall and Clarke, 2269, 2271.

(?) crebristriata Hall, Hall and Clarke, 2269, 2271.

(?) lineata Hall, Hall and Clarke, 2269,

patelliformis Hall, Hall and Clarke, 2269,

Phryganea ejecta n. sp., Seudder, 4899. Phycograptus n. gen., Gurley. 2217.

brachymera n. sp., Gurley, 2217. Phyllangia florida 1a n. sp., Gane, 1934.

Phyllites, Dawson, 1436.

amissus n. sp., Lesquereux, 3470. arctica n. sp., Knowlton, 3232. aristolochlæformis n. sp., Lesquereux,

carneosus Newb., Newberry, 4083.
cclatus n. sp., Lesquereux, 3470.
crassilfolia n. sp., Knowlton, 3255.
cupanioides, Newb., Newberry, 4083a.
durescens n. sp., Lesquereux, 3470.
ellipticus n. sp., Newberry, 4080.
erosus n. sp., Lesquereux, 3470.
flexuosus n. sp., Lesquereux, 3470.
lacoie n. sp., Lesquereux, 3470.
laurencianus n. sp., Lesquereux, 3470.
laurencianus n. sp., Lesquereux, 3470.
obcordatus Heer, Newberry, 4083.
obscura Hollick n sp., Newberry, 4080.

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Phyllites obscurus u. sp., Knowlton, 3246.
orbicularis n. sp., Newberry, 4082.

oregonianus n. sp., Knowlton, 3262. perplexus n. sp., Lesquereux, 3470. snowii n. sp., Lesquereux, 3470.

stipulæformis n. sp., Lesquereux, 3470. triloba n. sp., Knowlton, 3264. vanonæ Heer, Lesquereux, 3470.

vanonæ Heer, Newberry, 4083. venosus Newb., Newberry, 4083. undulatus n. sp., Newberry, 4082.

zamlæformis n. sp., Lesquereux, 3470. sp., Knowlton, 3262, 3264.

Phyllobius antecessor, Scudder, 4890. avus, Seudder, 4890. carcerarius, Seudder, 4890.

Phyllocarida, Clarke, 939.

Phylloceras Suess, Smith, 5052. indra (var.), Whiteaves, 6085. knoxvillensis n. sp., Stanton, 5199. knoxvillense var., Whiteaves, 6095a. onöense Stanton, Smith, 5052.

cf. velledoe (Michelin), Aguilera, 57.
Phyllocladus subintegrifolius Lesq., Les-

quereux, 3470. Phyllodietya, Simpson, 4983.

Phyllodietya Ulrich, Ulrich, 5537. frondosa? Ulrich, Ulrich, 5537. varia n. sp., Ulrich, 5537.

Phyllonotus morulus Har., Harris, 2316.

Phyllopora, Simpson, 4983.

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howleyi, Walc. sp.?, Matthew, 3789. paradoxoides, Matthews, 3744, 3751, 3761. Protophyllum, Dawson, 1436.

crassum, n. sp., Lesquercux, 3470. crednerioides? Lesq., Lesquereux,, 3472. crenatum, Lesquereux, 3470. denticulatum n. sp., Lesquereux, 3470. dimorphum n. sp., Lesquereux, 3470. haydenii Lesq., Lesquereux, 3470. integerrimum n. sp., Lesquereux, 3470, 3472.

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> obovatum n. sp., Newberry, 4080. præstans n. sp., Lesquereux, 3470. pseudospermoides n. sp., Lesquereux,

> pterospermifolium n. sp., Lesquereux, 3470.

querciforme n. sp., Hollick, 2681. sternbergii Lesq., Lesquereux, 3470. sternbergii Lesq., Newberry, 4083. undulatum n. sp., Lesquereux, 3470.

Protoreodon Scott and Osborn, Scott. 4884. Protorhyncha Hall, Hall and Clarke, 2261a.

Protorohippus n. gen., Wortman, 6489. venticolus (Cope), Wortman, 6489.

Protorthis n. gen., Hall and Clarke, 2260. cassinensis n. sp., Whitfield, 6106. minima n. sp., Whitfield, 6106.

Protosalvinia (Sporangites) huronensis, Ami,

Protoscolex magnus n. sp., Miller and Faber, 3994.

Protaspyræna gigas n. sp., Stewart, 5243. Protoselene n. gen., Matthew, 3801.

opisthacus Cope, Matthew, 3801. Protosiphon kempanum Matt., Matthew, 3781 Protosphyræna recurvirostris n. sp., Stewart, 5240

Protosphyrænidæ S. Woodward, Crook, 1147 Protosphyræus bentonia n. sp., Stewart, 5237.

n. sp., Stewart, 5237. Protospongia Salter, Matthew, 3761. coronata Dawson, Dawson, 1452. cyathiformis Dawson, Dawson, 1452. (?) cyathiformis Dawson, Rauff, 4548. delicatula Dawson, Dawson, 1452. minor var. distans Matthew, Rauff, 4548. mononema Dawson, Dawson, 1452. mononema Dawson, Rauff, 4548. polynema Dawson, Dawson, 1452. polynema Dawson, Rauff, 4548. tetrenema Dawson, Dawson, 1452. tetranema Dawson, Rauff, 4548. (Diagoniella) coronata Dawson, Rauff,

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4548.

ischyra (Weiland), Weiland, 6130.

Protowarthia n. gen., Ulrich and Scofield, 5541. cancellata Hall, Ulrich and Scofield, 5541. concinna n. sp., Ulrich and Scofield, 5541. granistriata n. sp., Ulrich and Scofield,

obesa n. sp., Ulrich and Scofield, 5541. pervoluta n. sp., Ulrich and Scofield, 5541. planodorsata n. sp., Ulrich and Scofield, 5541.

rectangularis n. sp., Ulrich and Scofield, 5541.

subcompressa n. sp., Ulrich and Scofield, 5541.

Protriton, Case, 767.

Protylopus Wortman, Scott, 4884. petersonii n. gen. et sp., Wortman, 6493.

Genera and species described—Continued.

Proutella, Simpson, 4983.

Prunus (?) acutifolia n. sp., Newberry, 4080. (amygdalns)? antecedens n. sp., Lesquereux, 3470.

variabilis Newberry, Knowlton, 3232. variabilis Newb., Newberry, 4083.

Pryenomoeus decipiens n. sp., Ulrich, 5535. subcuneatus n. sp., Ulrich, 5535.

Psammeehinus eingnlatus Clark, Clark, 892.

Psammoba (Lam.) Bowdich, Dall, 1281. ozarkana n. sp., Harris, 2313. (Gobræus) wagneri Dall, Dall, 1281.

Psammobiidæ, Dall, 1276.

Psammosolen Risso, Dall, 1281.

eumingianus Dunker, Dall, 1281. vieksburgensis Aldrich, Dall, 1281. (Azor) Leach, Dall, 1281.

Psephenus lutulentus n. sp., Seudder, 4900. Psephodus (Helodus) politus n. sp., Newberry, 4082.

Pseudamussium elaibornense, Harris, 2313.

Pseudocopteris Lx., White, 6050. obtusiloba (Brongn.) Lx., White, 6050. squamosu Lx. sp., White, 6050. sp., White, 6050.

Pseudodanæopsis obliqua (Emmons) Fontaine, Ward, 5857.

plana (Emmons) Fontaine, Ward, 5857. Pseudodiadema emersoni Clark, Clark, 892. diatretum (Morton), Clark, 892. texanum (Roemer), Clark, 892.

texanum Roemer, Cragin, 1115. Pseudoliva ostrarupis n. sp., Harris, 2307. ostrarupis, Harris, 2310.

var. pauper, Harris, 2310, scalina Heilp., Harris, 2310, 2316. tuberculifera Con., Harris, 2316. unicarinata, Harris, 2310, 2315, 2316. vetusta, Harris, 2310, 2315, 2316. vetusta var., Harris, 2311. vetusta?, Whitfield, 6097. sp., Harris, 2310.

Pseudomonotis curta Hall, Logan, 3559.

(?) cf. hawni Meek, Beede, 393. var. equistriata? sp.? nov., Beede, 393. robusta sp.? var.? nov., Beede, 393. tennistriata sp.? var.? nov., Beede, 398.

Psendopecopteris maeilenta (L. and H.) Lx., White, 6049.

squamosa, Lx., White, 6049.

Pseudoperna n. gen., Logan, 3557. attemata n. sp., Logan, 3557. orbicularis n. sp., Logan, 3557. rugosa n. sp., Logan, 3557. torta n. sp., Logan, 3557. wilsoni n. sp., Logan, 3557.

Pseudophorus teetiformis n. sp., Whiteaves, 6074.

6074.
Pseudosophærexochus trentonensis n. sp.,

Psiloconcha n. gen., Ulrich, 5539. elliptica n. sp., Ulrich, 5535. grandis n. sp., Ulrich, 5535. inorrata n. sp., Ulrich, 5535. minima n. sp., Ulrich, 5535.

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Psiloeoneha minnesotensisn. sp., Ulrich, 5539. sinuata Ulrich, 5535.

snbovalis Ulrieh, 5535.

subreeta n. sp., Ulrieh, 5535. tenuistriata n. sp., Ulrieh, 5535.

Psilonychia perangulata n. gen. et sp., Ulrich, 5535

Psilophyton grandis n. sp., Penhallow, 4333.

Psittacotherium Cope, Wortman, 6492.

multifragum Cope, Osborn and Earle, 4192. multifragum Cope, Wortman, 6490.

Ptenoceras n. gen., Hyatt, 2819.

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Pteranodon Marsh, 3702.

Pteranodon Williston, 6220.

Pteraspidæ, Case, 766.

Pterbostichus Bonelli, Seudder, 4896.

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dormitans, Scudder, 4896.

fractus, Scudder, 4896. gelidus, Scudder, 4896.

Pteria colymbus Bolten, Dall, 1272. hirundo Bolten, Dall, 1272.

var. vitrea Reeve, Dall, 1272. multangula H. C. Lea, Dall, 1272.

? salinensis White, Cragin, 1115. scopoli, Dall, 1272.

(argentea var.?) chipolana Dall, Dall 1272.

Pterichidae, Case, 766.

Pterinea Goldfns, Graban, 2086.

aviculoidea, Whitfield, 6099.

brisa, Foerste, 1835.

cardinata, Lane, 3400.

cincinnationsis n. sp., Miller and Faber,

flabella (Conrad), Grabau, 2086. flabella, Whitfield, 6099.

lobata n. sp., Whiteaves, 6074. regatula n. sp., Miller and Faber, 3996, similis, Whitfield, 6099.

sp.?, Clarke, 971.

Pterinopeeten Hall, Grabau, 2086. conspectus Hall, Grabau, 2086. hermes Hall, Grabau, 2086. cf. ketus II., Weller, 6006. proteus n. sp. Clarke, 971. pumilns n. sp., Clarke, 971. sedaliensis n. sp., Miller, 3992. signatus n. sp., Clarke, 971.

subequilateralis Hall, Clarke, 917. undodus Hall, Grabau, 2086.

Pteris dakotensis n. sp., Lesquereux, 3470. penmæformis Heer, Newberry, 4083. pseudopenmæformis, Hollick, 2708. russellii Newb., Newberry, 4083.

Pterodaetylus, Case, 768.

Pteronites hopkinsi n. sp., Weller, 5986. lævis n. sp., Weller, 5986.

whitei (Win.), Weller, 6006.

Pterophyllum daleanum Ward, n. nom., Ward, 5857.

inæquale Fontaine, Ward, 5857.

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Pterophyllum rajmahalense Morris, Ward,

Pteropsis Courad, Dall, 1272.

Pteropurpura postii n. sp., Dall, 1269. cupanioides Newb., Knowlton, 3224.

Pterospermites dentatus Heer, Newberry, 4083. haguei n. sp., Knowlton, 3255. longeacuminata n. sp., Lesquereux, 3470. modestus n. sp., Lesquereux, 3470. modestus Lesq., Hollick, 2696. undulatus n. sp., Knowlton, 3264. wardii n. sp., Knowlton, 3264.

Pterosphenus schueherti n. gen. et sp., Lucas, 3583.

Pterostichus pumpellyi n. sp., Scudder, 4900. walcotti n. sp., Scudder, 4900.

Pterotoerinus Lyon and Cass., Wachsmuth and Springer, 5765a.

acutus, var. bifurcatus (Wetherby), Wachsmuth and Springer, 5765a.

acutus Wetherby, Wachsmuth and Springer, 5765a.

capitalis (Lyon), Wachsmuth and Springer, 5765a.

chesterensis Meek and Worthen, Wachsmuth and Springer, 5765a. coronarius Lyon, Wachsmuth and Spring-

er, 5765a. erassus Meek and Worthen, Wachsmuth

and Springer, 5765a. depressus Lyon and Cass., Wachsmuth

and Springer, 5765a.

pyramidalis Lyon and Cass., Wachsmuth

and Springer, 5765a.

Pterotocrinus chesterensis (Meck and Worthen), Keyes, 3061. wetherbyi n. sp., Miller and Gurley, 3997d.

Pterygometopus callicephalus Hall (sp.), Clarke, 952.

cboraccus n. sp., Clarke, 952. intermedius Walcott (sp.) 1877, Clarke, 952. schmidti n. sp., Clarke, 952.

Ptilocella n. gen., Simpson, 4983.

Ptilodictya Lonsdale, Grabau, 2086.

Ptilodictya Simpson, 4983.

Ptilodictya Lonsdale, Ulrich, 5537. płumea Hall, Grabau, 2086.

Ptilodus Cope, Osborn, 4184.

Ptilopora, Simpson, 4983.

sp., Girty, 2038.

Ptiloporella, Simpson, 4983.

Ptiloporina, Simpson, 4983.

Ptilotrypa, Simpson, 4983.

Ptomatis forbesi n. sp., Clarke, 976.

Ptychoceras, Hvatt, 3819.

crassum Whitfield, Hyatt, 3819. near crassum, Harris, 2335.

texanum Shum., Hyatt, 3819.

(Selcnoceras) annulifer Whitfield, 6097. Ptychocrinus Wachsmuth and Springer, James. 2889.

angularis Miller and Dyer, James, 2889. parvus Hall, James, 2889.

splendens (S. A. Miller), Keyes, 3061.

Ptychodesma cf. P. minor Hall, Weller, 5994.

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Ptychonema, Simpson, 4983.

helderbergiæ Hall, Clarke, 971.

whippleyi, Williston, 6259.

Ptychoparia, Hawle and Corda, Matthew, 3788. adamsi Billings sp., Matthew, 3776. (E.) affinis Walcott, Walcott, 5816. autiqua Salter sp., Walcott, 5816.

(?) attleborensis Shaler and Foerste, Grabau, 2092.

calymenoides (Whitfield), Berkey, 429. (?) diademata Hall sp., Walcott, 5816. kingi, Beccher, 366.

limbata n. sp., Matthew, 3776.

linnarssoni, Beecher, 366.

llanoensis Walcott (?), Walcott, 5816.

monile, Beecher, 366. penfieldi n. sp., Walcott, 5816.

rogersi Walcott, Grabau, 2092.

(Atops) trilineata, James, 2893. (Lonochocephalus) wisconsensis, Owen

sp., Walcott, 5816. sp. undet., Walcott, 5816.

Ptychophyllum benedicti, n. sp., Greene, 2162c.

gemmatum, n. sp., Greene, 2162e.

robustum, n. sp., Greene, 2162d. Ptychopyge ulrichi n. sp., Clarke, 952.

Ptychosiagum, Case, 768.

Ptychospira n. gcn., Hall and Clarke, 2261, 2264.

Ptyctodus calecolus, Eastman, 1601. compressus n. sp., Eastman, 1601.

> ferox n. sp., Eastman, 1601. obliquus, Eastman, 1601.

major, Eastman, 1601.

molaris, Eastman, 1601. panderi n. sp., Eastman, 1601.

Ptyonius, Case, 767.

Ptysmaphora n. gen., Scudder, 4895. fletcheri n. sp., Scudder, 4895.

Pugnax, n. subgen., Hall and Clarke, 2261a. striatocostata (M. and W.) var.?, Weller,

6006. Pugnellus fusiformis Meek, Herrick and Johnson, 2465.

fusiformis (Mcek), Stanton, 5191.

Pulchellia bentonianum n. sp., Cragin, 1115.
mexicana n. sp., Aguilera, 57.
Pullonia pultilebeta p. sp., Changan, 870.

Pullenia multilobata n. sp., Chapman, 870. sphæroides (d'Orbigny), Chapman, 870.

Pulvinulina elegans, Bagg, 148.

haueri d'Orbigny sp., Woodward and Thomas, 567.

karsteni (Reuss), Bagg, 150.

menardii d'Orbigny sp., Woodward and Thomas, 6433. micheliniana (d'Orbigny), Bagg, 150.

micheliniana (d'Orbigny), Bagg, 150. reticulata Reuss, var. carinata Bagg, Bagg, 150.

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Pulvinulina sehreibersii, Bagg, 148.

Pupa primeva n. sp., Matthew, G. F., 3758.

Pyenoeeras n. gen., Hyatt, 3819.

apertum n. sp., Hyatt, 3819.

apertum n. sp., Hyatt, 3819. ealeiferiforme n. sp., Hyatt, 3819.

Pyenodont, Cope, 1084.

Pyenodus phaseolus, Hay, 2381.

Pyenomphalus solarioides Hall, Whiteaves, 6080.

Pycnopegma n. gen., Rauff, 4549. callosum n. sp., Rauff, 4549. pileum n. sp., Rauff, 4549. stromatoporoides n. sp., Rauff, 4549.

Pycnosaeeus Angelin, Weller, 6002. americanus n. sp., Weller, 6002.

Pygope Link, Hall and Clarke, 2264.

Pyramidella, Harris, 2309.

arenosa Conrad, Dall, 1259. bastropensis n. sp., Harris, 2307. crenulata Holmes, Dall, 1259. forulata n. sp., Gnppy and Dall, 2210. (Longeheus) jamaicensis n. sp., Guppy and Dall, 2214.

Pyramimitra costata Lea, Aldrich, 73. Pyrazisinus? haitensis n. sp., Guppy and

Dall. 2214.

Pyrgulifera Meek, White, 6036.

meekii n. sp., White, 6035.

stantoni n. sp., White, 6036.

viviparus hieksii n. sp., White, 6035.
Pyrifusus cuncus n. sp., Whitfield, 6097.
erraticus n. sp., Whitfield, 6097.
macarlandi n. sp., Whitfield, 6097.
meeki n. sp., Whitfield, 6097.
mullieaensis?, Whitfield, 6097.
pyruloides, Whitfield, 6097.

pyruloides, Whitfield, 6097. territus n. sp., Whitfield, 6097. Pyrina bulloides n. sp., Cragin, 1115. parryi Hall, Clark, 892. parryi Hall, Cragin, 1115.

Pyriopeeten Hall, Graban, 2086. orbienlatus Hall, Graban, 2086.

Pyritonema crassicauda n. sp., Rauff, 4548. fasciculus McCoy, Rauff, 4548. subulare (F. Roemer), Rauff, 4548.

Pyropsis bairdi M. and H., Herrick and Johnson, 2465.

elevata, Whitfield, 6097.
coloradoensis n. sp., Stanton, 5191.
coloradoensis Stanton, Logan, 3554.
naticoides n. sp., Whitfield, 6097.
(?) obesa n. sp., Whitfield, 6097.
oetolirata, Whitfield, 6097.
perlata?, Whitfield, 6097.
perula, Harris, 2310, 2311, 2316.
rectifer, Whitfield, 6097.
reileyi n. sp., Whitfield, 6097.
richardsonii? Whitfield, 6097.
trochiformis?, Whitfield, 6097.
(Rapa?) corrina n. sp., Whitfield, 6097.
(Rapa?) septemlirata, Whitfield, 6097.
sp., Clark, 906.

Pyrula juvenis, Harris, 2310. nansemondi Wagner, Dall, 1273. (Fusoficula) texana n. sp., Harris, 2307. Paleontology—Continued.

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Pyrula (Fusoficula) texana Har., Aldrich, 73.
Pyrus cretacea Newb., Newberry, 4083.
Quedius breweri, Seudder, 4900.
ehamberlini, Seudder, 4900.

Quercinium lamarense n. sp., Knowlton, 3255. Quercophyllum wyomingense n. sp., Fontaine, 1850.

eulveri, n. sp., Knowlton, 3255. Quereus, Knowlton, 3235.

alnoides n. sp., Lesquereux, 3470. antiqua Newb., Newberry, 4083. applegatei n. sp., Knowlton, 3262. argentum n. sp., Knowlton, 3263. bankslæfolia Newb., Newberry, 4083. breweri Lesquereux, Knowlton, 3262. castanoides Newb., Newberry, 4083. castanopsis Newb., Newberry, 4083. consimilis Newb., Knowlton, 3246, 3255, 3262.

consimilis Newb., Newberry, 4083. coriacea Newb., Newberry, 4083. dentoni Lesquereux, Dawson, 1448. dentonoides n. sp., Knowlton, 3264. dubia Newb., Newberry, 4083. elliptica Newb., Newberry, 4083. ellisiana Lx., Knowlton, 3255. jolmstrupi Heer (?), Newberry, 4080. flexnosa Newb., Newberry, 4083. fnreinervis americana Kn., Knowlton, 3255.

glaseoena n. sp., Lesquereux, 3470. gracilis Newb., Newberry, 4083. gronlandica Heer, Newberry, 4083. grossidentata n. sp., Knowlton, 3255. hesperia n. sp., Knowlton, 3255. hexagona Lesq., Lesquerenx, 3470. holmesii Lesq., Dawson, 1436. idahoensis n. sp., Knowlton, 3246. Iaurifolia Newb., Newberry, 4083. lesquerenxiana Kn., Knowlton, 3264. (?) magnifolia n. sp., Knowlton, 3255. microdentata n. sp., Hollick, 2708. morrisoniana Lesq., Hollick, 2698. montanensis n. sp., Knowlton, 3264. (?) novæ-eæsareæ n. sp., Holliek, 2698. obtusiloba, Jawson, G. M., 1418. obtusiloba michx., Penhallow, 4334. paeifica n. sp., Knowlton, 3262. paueidentata Newb., Newberry, 4083. payettensis n. sp., Knowlton, 3246. salicifolia Newb., Newberry, 4083. simplex Newb., Newberry, 4083. simulata n. sp., Knowlton, 3246. sinuata Newb., Newberry, 4083. spurio-ilex n. sp., Lesquereux, 3470. subsinuata n. sp., Knowlton, 3262. sullyi Newb., Newberry, 4083. suspecta n. sp., Lesquereux, 3470. turneri n. sp., Knowlton, 3263. wardiana n. sp. Lesquereux, 3470. wardiana Lx.?, Ward, 5856. weedii n. sp., Knowlton, 3255. yaneeyi n. sp., Knowlton, 3255. (Dryophyllum) hieracifolia, Lesquereux, 3470.

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Quercus (Dryophyllum) hosiana n. sp Lesquereux, 3470.

(Dryophyllum) rhamnoides n. sp., Lesquereux, 3470.

sp., Knowlton, 3255, 3262.

(?) sp.?, Hollick, 2698.

Radiolites, Stearns, 5210.

adhærens n. sp., Whitfield, 6107.

annulosus n. sp., Whitfield, 6107. cancellatus n. sp., Whitfield, 6107.

davidsoni n. sp., Hill, 2540.

macroplicatus n. sp., Whitfield, 6107. maximus n. sp., Logan, 3554.

rudis n. sp., Whitfield, 6107.

(Lapeirousia) nicholasi n. sp., Whitfield,

Rafinesquina n. gen., Hall and Clarke, 2260. Rafinisquina Hall, Winchell and Schuchert,

6319. alternata (Conrad Ms.) Emmons, Win-

chell and Schuehert, 6319. var. loxorhytis Mcek, Winchell and Schuchert, 6319.

deltoidea Conrad sp., Winchell and Schuchert, 6319.

lata 11. sp., Whiteaves, 6083, 6087.

minnesotensis N. H. Winchell, Winchell and Schuchert, 6319.

var. inquassa Sardeson, Winchell and Schuchert, 6319.

Randomia, Matthew, 3790.

auroræ, Matthew, 3790.

Rangia cuneata var. galvestonensis n. var., Harris, 2309.

desmoulins, Dall, 1272.

johnsoni Dall, Dall, 1272.

(?) quadricentenuialis n. sp., Harris, 2309. (Perissodou) minor (?), Whitfield, 6101. (Rangianella) Conrad, Dall, 1272.

Rampana tampaensis Dall var.?, Dall, 1272. tampaensis n. sp., Dall, 1272.

Raphistoma Hall, Ulrich and Scofield, 5541. Raphistoma Hall, Matthew, 3789.

affine, Foerste, 1835.

attleborensis Shaler and Foerste, Grabau, 2092.

(?) kellicnsis, n. sp., Matthew, 3789. lenticularis (Conrad), Keyes, 3062. multivolvatum n. sp., Calvin, 684. obtusa n. sp., Cleland, 1012. paucivolvatum, n. sp., Calvin, 684. pepinense Meek, Calvin, 684. peracutum n. sp., Ulrich and Scofield,

richmondensis n. sp., Ulrich and Scofield,

subplana Shumard, Keyes, 3062.

tyrrellii n. sp., Whiteaves, 6074. Raphistomidæ n. fam., Ulrich and Scofield,

Raphistomina n. gen., Ulrich and Scofield. 5541.

denticulata n. sp., Ulrich and Scoffeld, 5541.

lapicida Salter, Ulrich and Seofield, 5541. modesta n. sp., Ulrich and Scofield, 5541. Paleontology—Continued.

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Raphistomina rugata n. sp., Ulrich and Scofield, 5541.

Rauffella Ulrich, Winchell and Schuchert, 6318.

filosa Ulrich, Winchell and Schuchert, palmipes Ulrich, Winchell and Schuchert, 6318.

Receptaculites, James, 2881.

Receptaculites De France, Whitfield, 6102.

Receptaculites Defrance, Winchell and Schuchert, 6318.

circularis, James, 2881.

devonicus, Whitfield, 6099.

dickhauti, James, 2881.

dixonensis n. sp., Miller and Gurley, 4002. elrodi n. sp., Miller, 3995.

fungosus, Whitfield, 6102.

globularis, Whitfield, 6102.

hemisphericus, Whitfield, 6102. infundibulum, Whitfield, 6102.

infundibuliformis Eaton, Girty, 2034.

neptuni, Girty, 2034. oweni, Girty, 2034.

oweni Hall, Keyes, 3061.

oweni, Whitfield, 6102.

oweni Hall, Winehell and Schuchert, 6318. pearyi 11. sp., Whitfield, 6112.

reticulatus, James, 2881.

Remeleceras n. gen., Hyatt, 2819.

elarkense n. sp., Miller and Gurley, 4003. impressum, Hyatt, 2819.

Remondia Gabb, Stanton, 5202.

furcata Gabb, Stanton, 5202. robbinsi (White), Stanton, 5202.

Renicra (?), Merrill, 3969.

Rensselæria Hall, Hall and Clarke, 2261a, 2264. cayuga n. sp., Hall and Clarke, 2261a, 2263, 2268.

ovoides Eaton, Clarke, 971.

ovulum, Hall and Clarke, 2268.

(Beachia Hall), Hall and Clarke, 2264.

Reptaria Rolle, Grabau, 2086.

Reptaria, Simpson, 4983.

stolonifera Rolle, Grabau, 2086.

Requiemia texana (?) (Roemer), Hill, 2539. Resania Gray, Dall, 1272.

Reteocrinus Billings 1859, James, 2889.

alveolatus n. sp., Miller and Gurley,3997c. cognatus S. A. Miller, James, 2889.

graeilis Wetherby, James, 2889.

magnificus S. A. Miller, James, 2889. o'nealli Hall, James, 2889.

Reteograptus geinitzianus Hall, Gurley, 2217. Reteporella n. gen., Simpson, 4980, 4983.

Reteporina d'Orbigny, Grabau, 2086. Reteporina, Simpson, 4983.

striata Hall, Grabau, 2086.

sp. indes, Clarke, 971.

Reticularia cooperensis Swallow, Girty, 2038. eooperensis var., Girty, 2038.

cooperensis (Swall.), Weller, 6006. (?) peculiaris Shumard, Girty, 2038.

perplexa (McChesney), Girty, 2037. (?) subrotunda Hall, Girty, 2038.

Retusa chipolana n. sp., Dall, 1269.

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Retusa duplinensis n. sp., Dall, 1269. microtrema n. sp., Dall, 1269.

quercinensis n. sp., Dall, 1269.

(Cyliehnina) deeapitata n. sp., Dall, 1269.

Retzia King, Hall and Clarke, 2261, 2264.

circularis n. sp., Miller, 3995.

formosa, Whitfield, 6099.

mormoni (Marcou), Keyes, 3062. plicata n. sp., Miller, 3995.

? raricosta n. sp., Rowley, 4677a.

triangulus n. sp., Miller, 3995.

Rhabdocarpus multistriatus (Presl.) Lx., White, 6050.

(Pachytesta) mansfieldi Lx., White, 6050,

Rhabdogonium ræmeri Reuss, Bagg, 150. tricarinatum (d'Orbigny), Bagg, 150.

var. acutangulnm Reuss, Bagg, 150.

Rhabdomeson americanum n. sp., Rogers, 4658.

Rhabdosispongia n. gen., Hall and Clarke, 2269, 2270,

amalthea Hall (sp.), Hall and Clarke, 2269, 2270,

condroziana n. sp., Hall and Clarke, 2269,

Rhacophyllites (?) alamitosensis n. sp., Aguilera, 57.

calderoni u. sp., Aguilera, 57.

(?) disputabile 11. sp., Aguilera, 57.

Rhadinobrochus n. gen., Scudder, 4894. extinetus, Scudder, 4894.

Rhadinoceras n. gen., Hyatt, 2819.

hyatti, Hyatt, 2819. Rhamnacinium radiatum Felix, Knowlton,

Rhamnites apiculatus n. sp., Lesquereux,

3470 concinnus Newb., Newberry, 4083.

minor Hollick II. sp., Newberry, 4080. Rhamnus eleburni Lx., Hollick, 2708.

elegans Newb., Newberry, 4083. ellipticus n. sp., Kirchner, 3187. eridani Ung., Newberry, 4083. inæquilateralis 11. sp., Lesquereux, 3470. inæquilateralis Lesq., Hollick, 2698. mndgei n. sp., Lesquereux, 3470. prunifolius Lesq., Lesquereux, 3470.

revoluta n. sp., Lesquerenx, 3470. salicifolius Lx., Knowlton, 3264.

similis II. sp., Lesquereux, 3470.

Rhamphidia Meigen, Scudder, 4894. fæcaria, Scudder, 4894.

lœwi, Scudder, 4894.

saxetana Seudder, 4894.

Rhamphorynchus, Case, 768. Rhaphidiopsis n. gen., Seudder, 4892.

diversipenna, Seudder, 4892.

Rheetopsammia claibornensis n.sp., Vaughan,

Rhegnopsis palætlanticus Leidy, Cope, 1100. Rhinidictya, Simpson, 4983.

Rhinidietya Ulrich, Ulrich, 5537. exigua Ulrich, Ulrich, 5537.

fidelis Ulrich, Ulrich, 5537. grandis n. sp., Ulrich, 5537.

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Rhinidietya minima Ulrich, Ulrich, 5537.

var. modesta n. var., Ulrich, 5537. mutabilis Ulrich, Ulrich, 5537.

var. major, Ulrich, 5537.

var. senilis u. var. Ulrich, 5537.

neglecta n. sp., Ulrich, 5537.

paupera Ulrich, Ulrich, 5537

pendiculata n. sp., Ulrich, 5537.

trentonensis Ulrich, Ulrich, 5537.

n. sp., Whiteaves, 6087.

Rhinidictyonidæ n. fam., Ulrich, 5537. Rhinobolus Hall, Hall and Clarke, 220.

davidsoni n. sp., Hall and Clarke, 2260,

galtensis Billings, Whiteaves, 6080.

sp. undet., Whiteaves, 6080.

Rhinocantha? conradi n. sp., Whitfield, 6097. Rhinocaris, Clarke, 939.

Rhinocarist (?) bipennis n. sp., Clarke, 958.

Rhinoceros matutinus, Marsh, 3681.

Rhinopora, Simpson, 4983.

prima n. sp., Whitfield, 6106.

Rhipidomella Oehlert, Grabau, 2086.

Rhipidomella Oehlert, Hall and Clarke, 2260. burlingtonensis (Hall), Weller, 5994.

cyclas Hall, Grabau, 2086.

dimimitiva n. sp., Rowley, 4677a.

idonea Hall, Grabau, 2086.

leucosia Hall, Grabau, 2086.

michelini Léveillé, Girty, 2038.

oblata Hall, Clarke, 971.

oblata Hall, Girty, 2037.

var. emarginata Hall, Girty, 2037.

penelope Hall, Grabau, 2086.

vanuxemi Hall, Grabau, 2086.

Rhipidopterygia Cope, 1076.

Rhizodopsis mazonius, n. sp., Hay, 2388.

Rhizodus, Hay, 2381.

Rhizomorphs, Hollick, 2696.

Rhizostomites admirandus Haeekel, Walcott, 5811.

lithographicus Haeekel, Walcott, 5811.

Rhodocrinus benedicti n. sp., Miller, 3995.

blairi n. sp., Miller and Gurley, 4000. bozemanensis n. sp., Miller and Gurley, 4003.

bridgerensis n. sp., Miller and Gurley,

cælatus n. sp., Miller and Gurley, 3991.

coxanus Worthen, Keyes, 3061.

douglassi n. sp., Miller and Gurley, 4003. sculptus n. sp., Miller and Gurley, 3991.

wachsmuthi Hall, Keyes, 3061. whitei Hall, Keyes, 3061.

wortheni (Hall), Keyes, 3061.

Rheechinus burlingtonensis, Jackson, 2871. elegans, Jackson, 2871.

graeilis, Jackson, 2871.

Rhomboeladia n. gen., Rogers, 4656.

delicata n. sp., Rogers, 4656.

Rhombodictyon globosus n. sp., James, 2881. Rhombopora Meek, Grabau, 2086.

Rhombopora, Simpson, 4983.

hexagona (Hall), Grabau, 2086.

immersa Hall, Grabau, 2086.

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Rhombopora lepidodendroides Meek, Keyes,

lineata Hall, Grabau, 2086. polygona (Hall), Grabau, 2086. reticulata (Hall), Grabau, 2086.

tortalinia, Grabau, 2086. (?) transversa (Hall), Grabau, 2086.

Rhopalonaria, Simpson, 4983. Rhophalodon, Case, 768.

Rhus frigida n. sp., Knowlton, 3232.

membranacea Lx., Knowlton, 3264. mixta Lesquereux, Knowlton, 3262. (?) nervosa Newb., Newberry, 4083. ? nevadensis n. sp., Knowlton, 3263. payettensis n. sp., Knowlton, 3246. powelliana n. sp., Lesquereux, 3470. rotundifolia n. sp., Kirchner, 3187. uddeni n. sp., Lesquereux, 3470. uddeni Knowlton, 3234.

westii n. sp., Lesquereux, 3470. Rhynchites subterraneus, Scudder, 4890. Rhynchodus excavatus, Eastman, 1601.

major n. sp., Eastman, 1601. occidentalis, Eastman, 1601. rostratus n. sp., Eastman, 1601. secans, Eastman, 1601.

Rhynchonella Fischer de Waldheim, Hall and Clarke, 2261a, 2264.

Rhynchonella, Herrick and Johnson, 2465. anticostiensis var., Whiteaves, 6087.

9 anticostensis Billings, Winchell and Schuchert, 6319.

barquensis, Win., Lane, 3400. boonensis Shumard, Keyes, 3062. capax (Conrad), Keyes, 3062. colletti n. sp., Miller, 3995. dentata (Hall), Keyes, 3062. gnathopora Meek, Stanton, 5206.

hydraulicum, Whitfield, 6099. kokomoensis n. sp., Miller, 3995. lacur osa var. arolica Oppel, Aguilera, 57.

mainensis Bill., Williams, 6190.

missourieusis Shumard, Keyes, 3062. mutata Hall, Weller, 5986.

myrina Hall and Whitfield, Stanton, 5206.

nucleolata Hall, Williams, 6190. pyramidata Hall, Williams, 6190.

raricosta, Whitfield, 6099.

schucherti n. sp., Stanton, 5199.

scobina, Foerste, 1835.

subcircularis, Lane, 3400.

suciensis n. sp., Whiteaves, 6085.

uta (Marcou), Keycs, 3062.

vellicata Hall, Williams, 6190. whitneyi Gabb, Stanton, 5199.

sp. undet., Weller, 6006.

Rhynchonellina Gemellaro, Hall and Clarke,

Rhynchopora King, Hall and Clarke, 2261a,

Rhynchora Dalman, Hall and Clarke, 2264. Rhynchorina Oehlert, Hall and Clarke, 2264. Rhynchospira Hall, Hall and Clarke, 2264.

(Homceospira Hall), Hall and Clarke, 2264. formosa (Hall), Girty, 2037.

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Rhynchospira scansa, Hall and Clarke, 2268. Rhyncotreta Hall, Hall and Clarke, 2261a,

Rhyncorthoceras, Hyatt, 2819.

Rhynchotrema Hall, Hall and Clarke, 2261a,

Rhynchotrema Hall, Winchell and Schuchert, 6319.

ainsliei N. H. Winchell, Winchell and Schuchert, 6319.

capax Conrad sp., Winchell and Schuchert, 6319.

inæquivalvis Castelnau, Winchell and Schuchert, 6319.

var. laticostata W. and S., Winchell and Schuchert, 6319. inæquivalvis var. laticostata, Winchell

and Schuchert, 2298.

Rhynoceroses, Osborn and Wortman, 4189. Rhynochospira Hall, Hall and Clarke, 2261. Rhytimya Ulrich, Ulrich, 5539.

byrnesi, Ulrich, 5535. compressa n. sp., Ulrich, 5535. convexa n. sp., Ulrich, 5535. mickleboroughi, Ulrich, 5535. oehana n. sp., Ulrich, 5535. producta n. sp., Ulrich, 5535. radiata n. sp., Ulrich, 5535. recta n. sp., Whiteaves, 6087.

sinuata n. sp., Ulrich, 5539. Rhysosternum n. gen., Scudder, 4890. æternabile, Scudder, 4890. longirostre, Scudder, 4890.

Rhyssomatus tabescens, Scudder, 4890. Rhytophorus mcekii, White, White, 6036.

priscus Meek, White, 6036.

Ribeiria (?) nuculitiformis n. sp., Cleland, 1012. nuculitiformis var. equilatera (?), Cleland, 1012.

Ricania antiqua, Scudder, 4895.

Richthofenia Kayser, Hall and Clarke, 2261a,

Rineceras II. gcn., Hyatt, 2816.

Rinella texana n. sp., Harris, 2307. var. plena n. var., Harris, 2307.

Ringicula alabamensis n. sp., Aldrich, 74.

biplicata, Aldrich, 74. butleriana n. sp., Aldrich, 73, 74.

var. lignitifera n.var., Aldrich, 74.

butleriana Ald., Harris, 2316. butleriana var. lignitifera Ald., Harris,

chipolana n. sp., Dall, 1269.

claibornensis n. sp., Aldrich, 74. dalli n. sp., Clark, 904, 906.

dalli, Aldrich, 74. guppiyi Dall (floridana var.?), Dall, 1259

lisbonensis n. sp., Aldrich, 74. mississippiensis, Aldrich, 74.

semilimata n. sp., Dall, 1269.

trapaquara n. sp., Harris, 2307.

trapaquara, Aldrich, 74.

Rissoa athymorhyssa n. sp., Dall, 1259. lipeus n. sp., Dall, 1259.

(Alvania) pariana n. sp., Guppy and Dall, 2214.

Genera and species described-Continued.

Rissoa (Onoba) callistrophia n. sp., Dall, 1259. (Onoba) geræa n. sp., Dall, 1259.

> geræa var. minor, Dall, 1259. mieroharia n. sp., Dall, 1259.

Rissoina alabamensis n. sp., Aldrich, 73.

alabamensis Harris, 2310.

ehipolana n. sp., Dall, 1259.

johnsoni n. sp., Dall, 1250. lævigata Adams, Dall, 1259.

Roehefortia Vélain, Dall, 1281.

bidentata Montagu, Dall, 1281.

planulata Stimpson, Dall, 1281. stantoni n. sp., Dall, 1281.

stimpsoni n. sp., Dall, 1281.

Roemerella n. subgen., Hall and Clarke, 1260. Ræmerispongia n. gen., Hall and Clarke, 2269, 2270.

gerolsteinensis F. Roemer (sp.), Hall and Clarke, 2269, 2270.

Romingeria, Girty, 2032.

Romingeria Nicholson, Lambe, 3374.

umbellifera Billings (sp.), Lambe, 3374. Romingerina n. gen., Hall and Clarke, 2261a. [Centronella] julia, Lane, 3400.

Rondairia quadrans n. sp., Cragin, 1116.

Rosmarus sosmarus, Rhoads, 4586.

virginianus (De Kay), Rhoads, 4586.

Rostellaria compacta n. sp., Whitfield, 6097. curta n. sp., Whitfield, 6097.

fusiformis n. sp., Whitfield, 6097.

hebe n. sp., Whitfield, 6097.

nobilis n. sp., Whitfield, 6097.

spirata n. sp., Whitfield, 6097.

(Orthaulax) Gabb., Dall, 1259.

gabbi n. sp., Dall, 1259. puguax Heilprin, Dall, 1259.

(Rimella) smithii n. sp., Dall, 1259.

Rostellites ambigua Stanton, Herriek and Johnson, 2465,

ambigua n. sp., Stanton, 5191.

ambigua? Stanton, Logan, 3554.

angulatus n. sp., Whitfield, 6097.

biconieus n. sp., Whitfield, 6097.

dalli Stanton, Herrick and Johnson, 2465. dalli n. sp., Stanton, 5191.

gracilis Stanton, Herrick and Johnson, 2465.

gracillis n. sp., Stanton, 5191. nasutus, Whitfield, 6097.

pupoides n. sp., Cragin, 1116.

texturatus n. sp., Whitfield, 6097. willistonii n. sp., Logan, 3554.

Rotalia beccarii, Bagg, 148.

orbicularis, Bagg, 148.

orbicularis d'Orbigny, Chapman, 870. soldanii, Bagg, 148.

Roudairia denisonensis n. sp., Cragin, 1118. (?) quadrans, Stanton, 5197.

Rusophyeus chesterense n. sp., Miller and Gurley, 4003.

montanense n. sp., Miller and Gurley, 4003.

Sabal campbelli Newb., Newberry, 4083. campbellii Newberry, Dawson, 1448. grandifolia Newb. n. sp., Newberry, 4083. imperialis Dn., Dawson, 1436.

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Sabal imperialis Dn., Newberry, 4083. powelli Newb., Newberry, 4083.

Sabalites grayanus Lx., Knowlton, 3264. Saccocrinus benedieti n. sp., Miller, 3995.

gorbyi n. sp., Miller, 3992.

howardi n. sp., Miller, 3995. umbrosus n. sp., Miller and Gurley, 3997d.

Sacculina purpurca, Beecher, 366.

Saffordia n. gen., Ulrich, 5539.

modesta Ulrich, Ulrich, 5539.

sulcodorsata Ulrich, Ulrich, 5539. ventralis n. sp., Ulrich, 5539.

Sagenella, Simpson, 4983 Sagenodus, Hav. 2388.

brownlæ n. sp., Cope, 1103.

eonchiolopis n. sp., Cope, 1103.

copeanus n. sp., Williston, 6254. emmonsi Fontaine II. sp., Ward, 5857.

foliatus n. sp., Cope, 1103.

foliatus Cope, Hay, 2388.

fossatus Cope, Case, 773.

gurleyanus Cope, Case, 773.

gurleyanus n. sp., Cope, 1103.

heterolophus Cope, Case, 773.

lacovianus n. sp., Cope, 1103.

laeovianus Cope, Hay, 2388.

magister n. sp., Cope, 1103.

nilsoniana (Brongniart) Ward, n. comb., Ward, 5857.

occidentalis Newb., Cope, 1103.

occidentalis (Newb. and Worth.), Hav.

paueicristatus Cope, Case, 773.

pusillus Cope, Case, 773.

quadratus (Newb.), Hay, 2388.

quineunciaaus n. sp., Cope, 1103.

quincunciatus Cope, Hay, 2388.

reticulatus Newberry, Cope, 1103.

reticulatus (Newb. and Worth.), Hay, 2388.

textilis, Hay, 2381, 2388.

vabasensis Cope, Case, 773. vinslovii Cope, Case, 773.

sp. Fontaine, Ward, 5857.

Sagittaria latifolia Willd., Ward, 5846. victor-masoni n. sp., Ward, 5846.

Salenia bellula Clark, Clark, 892.

texana Credner, Clark, 892.

texana Credn., Cragin, 1115. tumidula Clark, Clark, 892.

Salik minuta n. sp., Knowlton, 3232.

Salisburia pusilla n. sp., Dawson, 1436.

Salix, Dawson, 1436.

angusta Al. Br., Knowlton, 3246, 3263, 3264. angusta Al. Br.?, Newberry, 4083.

cuneata Newb., Newberry, 4083.

delata n. sp., Lesquereux, 3470.

flexuosa Lesq., Hollick, 2695.

flexuosa Newb., Newberry, 4083.

foliosa Newb. n. sp., Newberry, 4083. hayei n. sp., Lesquereux, 3470.

inæqualis n. sp., Newberry, 4080.

inæqualis Newb., Hollick, 2696.

integra Goeppert, Dawson, 1448. meekii Newb., Hollick, 2698.

meekii Newb., Newberry, 4080.

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Salix membranacea Newb., Newberry, 4080,

newberryana Hollick n. sp., Newberry,

proteæfolia lanccolata Lesq., Holliek, 2695.

proteæfolia Lesq., Newberry, 4080.

proteæfolia var. flexuosa Lesq., Lesquereux, 3470.

var. lanccolata Lesq., Lesquereux, 3470.

var. linearfolia Lesq., Lesquereux, 3470.

var, longifolia Lesq., Lesquereux, 3470. purpuroides n. sp., Hollick, 2672. stantoni n. sp., Knowlton, 3264. vaccinifolia n. sp., Knowlton, 3263. varians Goeppert, Dawson, 1448. varians Heer, Knowlton, 3255. sp., Knowlton, 3264.

sp.?, Newberry, 4080. Salpingostoma Roemer, Ulrich and Scofield, 5541.

buelli Whitfield, Ulrich and Scofield, 5541. imbrieats n. sp., Ulrich and Scofield, 5541. richmondensis n. sp., Ulrich and Scofield,

sculptilis n. sp., Ulrich and Scofield, 5541. Salterella curvatus Shaler and Foerste, Grabau, 2092.

Salvinia elliptica Newby. n. sp., Hollick, 2673. Sampsonocrinus n. gen., Miller and Gurley,

hemisphericus n. sp., Miller and Gurley, 3998.

Sandalodus ellipticus n. sp., Newberry, 4082. Sandbergeroceras Hyatt, Clarke, 960.

syngonum n. sp., Clarke, 960. Sanguinolaria Lamarck, Dall, 1281. unioides n. sp., Guppy and Dall, 2214.

Sanguinolites borealis, Lane, 3400. borealis? Winchell, Lane, 3400. michiganensis Herrick, Lane, 3400. websterensis n. sp., Weller, 5994. sp.?, Weller, 5986.

Sannionites (Cameroceras) trentonense, Hyatt, 2820.

Sao hirsuta, Beecher, 366.

Saperdirhynehus n. gen., Scudder, 4890. priscotitillator, Scudder, 4890.

Sapindopsis variabilis Fontaine, Fontaine, 1850.

Sapindus affinis Newby., Knowlton, 3255.
affinis Newb., Newberry, 4083.
angustifolius Lx., Hollick, 2708.
apiculatus Vel., Hollick, 2698.
diversifolius n. sp., Lesquereux, 3470.
grandifoliolus Ward, Knowlton, 3255.
graudifolioloides n. sp., Knowlton, 3255.
(?) membranaceus Newb., Newberry, 4083.
morrisoni Lesq., Hollick, 2696.
morrisoni Lesq., Lesquereux, 3470, 3472.
wardii n. sp., Knowlton, 3255.
Sapocites haydenii Heer, Newberry, 4083.

Sapotacites americanus Lx., Hollick, 2708.

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Sapotacites retusus Heer, Newberry, 4080.

Sarcothraustes Cope, Matthew, 3801.

autiquus Cope, Matthew, 3801.

antiquus Cope, Osborn and Earle, 4191.

eoryphæus Cope, Osborn and Earle, 4191. Sarepta A. Adams, Dall, 1272.

Sassafras acutilobum Lesq. (?), Hollick, 2698. acutilobum Lesq., Newberry, 4083. cretaceum Newb., Newberry, 4083. cretaceum var. obtusum, Knowlton, 3234.

hastatum n. sp., Newberry, 4080. mudgei, Knowlton, 3234. mudgii Lx., Ward, 5856. primordiale n. sp., Lesquereux, 3470.

progenitor n. sp., Newberry, 4080. recurvatum (Lcsq.) Newb., Newberry, 4083.

subintegrifolium Lesq., Lesquereux, 3470. (Araliopsis) cretaceum Newb., var. Grossedentatum Lesq., n. var. Lesquereux, 3470.

dissectum Lesq., Lesquereux, 3470. (Araliopsis) dissectum symmetricum n. var. Hollick, 2681.

papillosum n. sp., Lesquercux, 3470. Sauranodon natans, Marsh, 3695.

Saurocephalus dentatus n. sp., Stewart, 5237. lanciformis, Hay, 2383. pamphagus n. sp., Hay, 2383.

Saurodon ferox n. sp., Stewart, 5239. xiphirostris n. sp., Stewart, 5239.

Sauropieura latithorax n. sp., Cope, 1103. Sauropoda, Marsh, 3717.

Saxícava Fleuriau de Bellevue, Dall, 1272. arctica Linné, Dall, 1272. billneata, Whitfield, 6101. myæformus, Whitfield, 6101.

paralis, Whitfield, 6101. Saxinis regularis n. sp., Scudder, 4900. Sbenaphis Scudder, Scudder, 4895. quesneli, Scudder, 4895.

Scævogyra Whitfield, 1878, Berkey, 429. minnesotensis n. sp., Berkey, 429. Scala, Harris, 2316.

exquisita n. sp., Aldrich, 74. exquisita, Ald., Harris, 2316. galvestonensis n. sp., Harris, 2309 octolineata Con., Aldrich, 74. unilineata, Aldrich, 74. virginiana n. sp., Clark, 904, 906.

(Opalia) H. and A. Adams, Dall, 1259. de-bouryi Dall, Dall, 1259. (Sthemorytis) stearnsii, Dall, 1259.

sp., Harris, 2310. Scalaria hercules n. sp., Whitfield, 6097.

multistriata, Whitfield, 6101. pauperata n. sp., Whitfield, 6097. sillimani, Whitfield, 6097. tenuilirata n. sp., Whitfield, 6097. (Opalia) thomasi?, Whitfield, 6097.

Scalaripora, Simpson, 4983.

Scalarituba missouriensis n. gen. et. sp., Weller, 5994.

Scapanorhynchus rhaphiodon, Williston, 6259. Scaphander Montfort, Dall, 1259.

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Scaphander alabamensis n. sp., Aldrich, 73.

alabamensis Ald., Harris, 2316.

floridana Heilprin, Dall, 1259.

langdoni n. sp., Dall, 1269.

ligniticus n. sp., Aldrich, 74.

ligniticus Ald., Harris, 2316.

primus Ald., Aldrich, 73.

primus Aldrich, Dall, 1259.

Scapharca subrostrata, Whitfield, 6101.

subrostrata Conrad, Dall, 1272.

snbrostrata Conrad, Dall, 1272.
(Anadara) aresta n. sp., Dall, 1272.
campsa n. sp., Dall, 1272.
catasarea n. sp., Dall, 1272.
clisea n. sp., Dall, 1272.
rostica Tuomey and Holmes, Dall, 1272.

(Argina) tolepia n. sp., Dall, 1272. campechensis Dillwyn, Dall, 1272. (Bathyarca) hendersoni n. sp., Dall, 1272. spenceri n. sp., Dall, 1272.

(Cunearea) alcima n. sp., Dall, 1272. cumanensis, Dall, 1272. incongrua Say, Dall, 1272. initiator n. sp., Dall, 1272. scalarina Heilprin, Dall, 1272 scalaris Conrad, Dall, 1272.

(Scapharca) acompsa n. sp., Dall, 1272. actinophora n. sp., Dall, 1272. arata Say, Dall, 1272. auriculata Lamarck, Dall, 1272. eallicestosa n. sp., Dall, 1272. campyla n. sp., Dall, 1272. carolinensis Wagner, Dall, 1272. chiriquiensis Gabb, Dall, 1272. dodona n. sp., Dall, 1272. donacia n. sp., Dall, 1272. halidonata n. sp., Dall, 1272. hypomeia n. sp., Dall, 1272. idonea Conrad, Dall, 1272. improcera Conrad, Dall, 1272. inequilateralis Guppy, Dall, 1272. latidentata, Dall, 1272. lesueuri Dall, Dall, 1272. lineosa Say, Dall, 1272. plicatura Conrad, Dall, 1272. santarosana n. sp., Dall, 1272. staminata n. sp., Dall, 1272. staminea Say, Dall, 1272. subsinuata Conrad, Dall, 1272. traversa Say, Dall, 1272. triphera n. sp., Dall, 1272.

Scaphella demissa Con. var., Harris, 2316. heilprini, Harris, 2316. showalteri, Harris, 2310. trenholmii Tuomcy and Holmes, Dall,

(Aurinia) mutabilis Conrad, Dall, 1259. virginiana Conrad, Dall, 1259. (Aurinia?) striata Gabb, Dall, 1259. (Caricella) leana Dall, Dall, 1259. podagrina, Dall, 1259.

subangulata Conrad, Dall, 1259. sp., Harris, 2310.

Scaphiocelia Whitfield, Hall and Clarke, 2261a.

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Scaphiocrinus arboreus Worthen, Springer,
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arrosus n. sp., Miller and Gurley, 3997a. bellus n. sp., Miller and Gurley, 3991. bonoensis n. sp., Miller and Gurley, 3991. borbyi n. sp., Miller, 3992. lacunoses n. sp., Miller, 3995. lyoni n. sp., Miller, 3995. maniformis n. sp., Miller, 3995. manus n. sp., Miller and Gurley, 3991. martinensis n. sp., Miller and Gurley, 3997a.

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repertus n. sp., Miller and Gurley, 3991.
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? washburni n. sp., Beede, 397.
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> hippocrepis, Whitfield, 6097. iris, Whitfield, 6097. larvæformis M. and H., Logan, 3554. larvæformis Meek and Hayden, Stanton, 5191.

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Scaphognathus, Case, 768. Scenella Billings, Matthew, 3790. Scenella, Ulrich and Scofield, 5541.

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Scenellopora, Simpson, 4983. Scenidium Hall, Hall and Clarke, 2260. Scenidium, Hall, Winchell, and Schuchert, 6319.

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Sceptropora, Simpson, 4983.

Schapites larvæformis, M. and H., Herrick and Johnson, 2465.

mullanaus, M. and H., Herrick and Johnson. 2465.

ventricosus, M. and H., Herrick and Johnson, 2465.

vermiformis, M. and H., Herrick and Johnson, 2465.

warreni, M. and H., Herrick and Johnson,

Schicophoria striatula (Schlotheim) Schuchert, Girty, 2039.

Schizambon Walcott, Hall and Clarke, 2260. Schizambon Walcott, Winchell and Schuchert, 6319.

? dodgii n. sp., Winchell and Schuchert, 6319.

? lockii n. sp., Winchell and Schuchert, 6319.

Schizaster lecontei n. sp., Mcrriam, 3922.

Schizoblastus savi (Shumard), Keyes, 3062. Sehizobolus Ulrich, Graban, 2086.

Schizobolus Ulrich, Hall, and Clarke, 2260. truncatus Hall, Grabau, 2086.

Schizocrania Hall and Whitfield, Hall and Clarke, 2260.

Schizocrania Hall and Whitfield, Winchell and Schuchert, 6319.

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Schizodus King, Grabau, 2086.

æquelis Hall, Weller, 5994.

affinis Herrick, Girty, 2037.

appressus (Conrad), Grabau, 2986.

batesvillensis n. sp., Weller, 5986.

binumbonata cf. æquimarginalis Winchell, Lane, 3400.

burlingtonensis 11. sp., Weller, 6006.

chesterensis, Whitfield, 6099.

cuneatus Meek, Smith, 5046.

depressus Worthen (?), Weller, 5986.

harii n. sp., Miller, 3992.

harii Miller, Keyes, 3062.

insignis n. sp., Drake, 1539.

iowensis n. sp., Weller, 6006.

meekanus n. sp., Girty, 2037.

pandatus n. sp., Girty, 2037.

sedaliensis n. sp., Miller and Gurley, 4002. telliniformis n. sp., Girty, 2037.

triangularis Herrick, Lane, 3400.

wheeleri (Swallow), Keyes, 3062. wheeleri Swallow, Smith, 5046.

? sp., Weller, 5986.

Schizolepis liaso-keuperina Friedrich Braun, Ward, 5857.

Schizolopha Ulrich, Ulrich and Scofield, 5541. moorei n. sp., Ulrich and Scofield, 5541. textilis n. sp., Ulrich and Scofield, 5541.

Schizoneura planicostata (Rogers) Fontaine?, Ward, 5857.

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Genera and species described—Continued. Schizopholis Waagen, Hall and Clarke, 2260.

Schizophoria King, Hall and Clarke, 2260. swallovi (Hall), Weller, 5994, 6006.

Schizotreta Kutorga, Hall and Clarke, 2260.

Schizotreta Kutorga, Winchell and Sehuchert, 6319.

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pelopea Billings sp., Winchell and Schuchert, 6319.

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leonensis Con., Cragin, 1115. peruviana Von B., Cragin, 1115. peruviana, Stanton, 5197.

woolgari Mantell, Cragin, 1115.

Schmidtella Ulrich, Ulrich, 5540.

affinis n. sp., Ulrich, 5540. brevis n. sp., Ulrich, 5540.

cambrica n. sp., Matthew, 3761.

crassimarginata n. gen. et sp., Ulrich, 5532,

incompta n. sp., Ulrich, 5540. subrotunda n. sp., Ulrich, 5540.

unbonata n. sp., Ulrich, 5540. Schmidtia Volborth, Hall and Clarke, 2260.

Scheenaster legrandensis n. sp., Miller and Gurley, 3991.

Schoenophyllum, n. gen., Simpson, 4984. Schroederoceras angulatum, Hyatt, 2819.

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denckelmanni, Hyatt, 2819.

eatoni, Hyatt, 2819.

rarospira, Hyatt, 2819.

saemanni, Hyatt, 2819.

teres, Hyatt, 2819.

tubulatum 11. sp., Hyatt, 2819.

Sciabregma n. gen., Scudder, 4890.

rugosa, Scudder, 4890.

Scintilla clarkeana n. sp., Aldrich, 74. clarkeana, Harris, 2313.

Sciponoceras, Hyatt, 2819.

Sciurus calycinus Cope, Cope, 1104.

Scleropteris distantifolia n. sp., Fontaine,

rotundifolia n. sp., Fontaine, 1850. vernonensis n. sp., Ward, 5846.

Scolecophagus affinis n. sp., Shufeldt, 4960. Scolithus, cf. S. linearis Hall, Grabau, 2092. Scutella gabbi Rémond, Merriam, 3922.

interlineata Stimpson, Merriam, 3922.

Scutellaster cretaceus n. gen. et sp., Cragin,

Scyllium planidens n. sp., Williston, 6259. rugosum n. sp., Williston, 6259.

(Lamna?) gracilis n. sp., Williston, 6259. Seyphomya Dall, Dall, 1272.

Scyphophorus fossionis, Scudder, 4890. lævis, Seudder, 4890.

Scytalocrinus hoveyi Worthen, Springer, 5163, validus, Springer, 5163.

vanhornei Worthen, Springer, 5163. Scythropus somniculosus, Scudder, 4890.

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Selenella n. gen., Hall and Clarke, 2261a. gracilis, Hall and Clarke, 2261a, 2268. laciniata Lx., Knowlton, 3264.

Sclenopora, Simpson, 4983.

Semæostomites zitteli Haeekel, Waleott, 5811.

Semele Sehumaeher, Dall, 1281.

alumensis n. sp., Dall, 1281. bella Conrad. Dall, 1281.

bellastriata Conrad, Dall, 1281.

burnsii Whitfield, Dall, 1281. carinata Conrad, Dall, 1281.

ehipolana n. sp., Dall, 1281.

eythereoidea n. sp., Dall, 1281.

leana n. sp., Dall, 1281. mutica n. sp., Dall, 1281.

nuculoidea Conrad, Dall, 1281.

perlamellosa Heilprin, Dall, 1281.

proficua Pulteney, Dall, 1281.

purpurascens Gmelin, Dall, 1281.

subovata Say, Dall, 1281.

silieata n. sp., Dall, 1281. smithii n. sp., Dall, 1281.

Semicoscinium, Simpson, 4983.

Seminula bisinuata n. sp., Rowley, 4677a.

dawsoni n. sp., Hall and Clarke, 2261a, 2263, 2268.

humulis n. sp., Girty, 2038.

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madisonensis n. sp., Girty, 2038.

var. pusilla n. var., Girty, 2038. rogersi n. sp., Hall and Clarke, 2261a, 2263,

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Semipora, Simpson, 4983. Septopora, Simpson, 4983.

biserialis (Swallow), Keyes, 3062.

Sequoia augustifolia? Lx., Knowlton, 3246. brevifolio Heer, Knowlton, 3264.

eouttsie Heer, Knowlton, 3255, 3262.

gracilis Heer, Fontaine, 1850. gracillima (Lesq.) Newb., Newberry 4080,

heerii Lesq., Newberry, 4083.

heterophylla Vel., Newberry, 4080.

langdorffii Heer, Dawson, 1436.

langsdorfii (Brongn.) Heer, Knowlton,

langsdorfii (Brongniart) Heer, Knowlton, 3232, 3262.

magnifica n. sp., Knowlton, 3255.

nordenskioldii Heer?, Newberry, 4083. pagiophylloides n. sp., Fontaine, 1846,

reiehenbaehi (Geinitz) Heer, Fontaine,

rciehenbaehi (Gein.) Heer, Holliek, 2698. reichenbachi (Gein.) Heer (?), Newberry, Paleontology-Continued.

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Sequoia spinosa Newberry, Knowlton, 3232. spinosa Newb., Newberry, 4083.

winehelli n. sp., Lesquereux, 3472.

sp. Fontaine, 1850. sp. Knowlton, 3264.

Serpula granifera, Say, 4813.

intrica White, Logan, 3554.

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plana n. sp., Logan, 3554.

tenuicarinata M. & H., Logan, 3554. sp. Clark, 906.

Serpulites dissolutus Billings, Whiteaves, 6087. longissimus n. var., Ami. 88.

Serpulorbus ballistæ, Dall (granifera var.?),

granifera tenera Dall, Dall, 1259.

sylværupis n. sp., Harris, 2316.

Serrifusus crosswickensis n. sp., Whitfield,

(Lirofusus) nodoearinatus n. sp., Whit-

Serripes Beck, Dall, 1281.

grönlandieus Beck, Dall, 1281.

laperousii Deshayes, Dall, 1281.

Shastasaurus paeificus n. sp., Merriam, 3915. Shumardoerinus n. gen., Miller and Gurley,

concinnus Shumard, Miller and Gurley,

Sibynes whitneyi, Scudder, 4890.

Siderastrea hexagonalis, n. sp., Vaughan, 5735. Sieberella Ochlert, Hall and Clarke, 2261a,

roemeri, Hall and Clarke, 2268.

costatus n. sp., Cooper, 1072. declivus Con., Harris, 2315, 2316.

multiplicatus n. sp., Dall, 1259.

textilis n. sp., Stanton, 5191.

(Eunaticina) textiles, Stanton, Herrick and Johnson, 2465.

(Sigaticus) clarkeanus Ald., Aldrich, 73. Sigillaria, Dawson, 1455.

Sigallaria Brongn., White, 6040.

sigillarioides (Lx.) White, 6050.

(Asolanus) camptotænia, H. C. Wood,

White, 6050.

Sigmogomphius leeontei 11. gen. et sp., Merriam, 3917.

Siliqua Megerle, Dall, 1281.

huerfanensis, Stanton, Herrick and Johnson, 2465.

huerfanensis n. sp., Stanton, 5191.

nuttallii Conrad, Dall, 1281.

(patula Dixon var.?) oregonia, Dall, Dall,

simondsi n. sp., Harris, 2307. subequalis Gabb, Dall, 1281.

Siliquatia pauperata n. sp., Whitfield, 6097.

Silpha colorata n. sp., Scudder, 4900.

Sipho erecta n. sp., Aldrich, 73.

? erecta Ald., Harris, 2315. tuomeyi Ald., Harris, 2316.

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Siphonaria capuloides n. sp., Cooper, 1071. Siphonocetus clarkianus n. sp., Cope, 1096.

Siphonocrinus S. A. Miller, Weller, 6002. nobilis Hall, Weller, 6002.

Siphonotreta de Verneuil, Hall and Clarke

Siphonetreta de Verneuil, Winchell and Schuchert, 6319.

minnesotensis n. sp., Hall and Clarke, 2260.

? minnesotensis Hall, Winchell and Schuchert, 6319.

(?) minnesotensis, Hall and Clarke, 2268. Sistrum (Ricinula?) cretaceum n. sp., Cooper, 1072

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Smicrorhynchus n. gen., Scudder, 4890. macgeei, Scudder, 4890.

Smilax cyclophylla Newb., Newberry, 4083. grandifolia-cretacea n. sp., Lesquereux, 3470.

lamarensis, n. sp., Knowlton, 3255. undulata, n. sp., Lesquereux, 3470.

Smilodon gracilis Cope, Cope, 1093. mercerii Cope, Cope, 1104. (syn. Dinobastis Cope), Adams, 38.

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orbis clypeatus n. sp., Guppy and Dall, 2214.

subangulatus Meyer var., Aldrich, 74. Solarium alabamense, Harris, 2310.

amphitermum n. sp., Dall, 1259. bastropensis n. sp., Harris, 2307. bellensc n. sp., Harris, 2315, 2316. chiakasænse n. sp., Gragin, 1118. cupola Heilp., Harris, 2316. elaboratum Con., Harris, 2316.

var. delphinuloides Heilp., Harris,

var. intusum n. var., Harris, 2316. elaboratum vir bimixta Aldrich, 72. huppertzi n. sp., Harris, 2307. huppertzi var. Har., Harris, 2311, 2316. greggi n. sp., Harris, 2311, 2316. leanum Dall, Harris, 2316. periscelidum, Harris, 2310. planiforme n. sp., Aldrich, 72. sylværupis n. sp., Harris, 2311, 2316. sp., Clark, 906.

sp., Harris, 2310.

sp.?, Guppy and Dall, 2214. Solecardia Conrad, Dall, 1281.

(Spaniorinus) cossmanni n. sp., Dall, 1281. Solecurtus (Blainville), Dall, 1281. Paleontology-Continued.

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? obscura, Stanton, Herrick and Johnson, 2465.

? obscura n. sp., Stanton, 5191. occidentalis n. sp., Stanton, 5199. petricoloides (Lea), lark, 906.

Solen Linné, Dall, 1281.

amphistemma n. sp., Dall, 1281. conradi Dall, 1281.

rosaceus Carpenter, Dall, 1281. sicarius Gould, Dall, 1281. viridis Say, Dall, 1281.

(Plectosolen) lisbonensis Aldrich, Dall, 1281.

protextus Conrad, Dall, 1281. var. abruptus Dall, Dall, 1281. sp., Harris, 2313.

Soleniscus Meek and Worthen, Keyes, 3062. brevis (White), Keyes, 3062. gracilis (Cox) Keyes, 3062. missouriensis (Swallow), Keyes, 3062. newberryi (Stevens), Keyes, 3062. paludinæformis (Hall), Keyes, 3062.

Solenochilus blairi n. sp., Miller, 3995. collectus, Hyatt, 2816. kentuckiensis n. sp., Hyatt, 2816. rockfordense n. sp., Miller, 3992.

Solenomya parallelan, sp., Beede and Rogers, 396.

Solenopleura arenosa Bill. sp., Matthew, 3776. var. angilimbata n. var., Matthew, 3776.

robbi, Beecher, 366. robbii Hartt mut. parva, Matthew, 3776.

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? weedi, Walcott, 5816. Solenopora compacta Billings, Ami, 79. compacta Billings, Winchell and Schuch-

Solenopsis solenoides (Geinitz), Keyes, 3062. Solenospira n. gen., Ulrich and Scofield, 5541. pagoda Salter, Ulrich and Scofield, 5541. pagoda Salter var. occidentals, Whiteaves,

prisca Billings, Ulrich and Scofield, 5541. Solenosteira inornata n. sp., Dall, 1259. mengeana n. sp., Dall, 1259.

Somphospongia n. gen., Beede, 394. multiformis n. sp., Beede, 394.

Spathella subelliptica n. sp., Whiteaves, 6074. ventricosa (W. and W.), Weller, 6006.

Spathyema? nevadensis n. sp., Knowlton, 3263.

Spatiopora Ulrich, Ulrich, 5537. iowensis n. sp., Ulrich, 5537. labeculosa n. sp., Ulrich, 5537.

Spermatodus pustulosus n. gen. et sp., Cope. 1093.

Spermophagus vivificatus, Scudder, 4900. Sphærella (?) anteproducta n. sp., Harris, 2307.

sp., Harris, 2313.

Sphærexochus pisum n. sp., Foerste, 1835. Sphæria problematica n. sp., Lesquereux, 3470. Sphærium simile Say, Baker, 217.

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Sphærobolus n. gen. prov., Matthew, 3767. spissus (Billings), Grabau, 2092. spissus, Matthew, 3767.

Sphærodoma littonana (Hall), Keyes, 3062. medialis (Meek and Worthen), Keyes, 3062.

pinguis (Win.), Weller, 6006. ponderosa (Swallow) Keyes, 3062. primogenia (Conrad), Keyes, 3062.

Sphærophthalmus alatus Boeck, var. canadensis, n. var., Matthew, 3751.

Sphagiopora, Simpson, 4983.

Sphenia Turton, Dall, 1272.

attennata n. sp., Dall, 1272.

Sphenocelus uintensis, Osborn. 4190. Sphenodiscus belviderensis Cragin, Cragin,

var. mons clavatus, Cragin, 1132.
comancheanns, Cragin, 1132.
dnmblii n. sp., Cragin, 1115.
emarginatus n. sp., Cragin, 1115.
lenticularis Owen, Cragin, 1115.
mentorianus, Cragin, 1132.
roemeri n. sp., Cragin, 1132.
uddeni, Cragin, 1132.

Sphærueaprina felixi n. sp., Boehm, 503a. Ienki n. sp., Boehm, 503a. occidentalis Conrad sp., Boehm, 503a.

Sphenolepidium kurrianum (Dunker) Heer, Fontaine, 1850.

pachyphyllum?, Dawson, 1434. parceramosum Fontaine, Fontaine, 1850. sterubergianum var. densifolium Font., Fontaine, 1846, 1847.

sternbergianum (Dunk.) Heer, Ward, 5846.

Sphenolium S. A. Miller, Ulrieh, 5539. cuneiforme S. A. Miller, Miller and Faber, 3997.

parallelum n. sp., Ulrich, 5539. striatum n. sp., Ulrich, 5539.

Sphenophyllum Brongiart, White, 6040.

bifurcatum Lx., White, 6052. cuneifolium (Stb.) Zeill., White, 6049,

6052. euneifolium (Sternb.) Zeill., White, 6049,

eunetionim (sternb.) Zeill., White, 6040. emarginatum Brongn., White, 6050. lesenrianum n. sp., White, 6040, 6050. majns Brongn., White, 6040, 6050. suspectum n. sp., White, 6049.

tenerrimum Ett. var. elongatum n. var., White, 6052.

tenue n. sp., White, 6052.

(Asterophyllites?) faseiculatum (Lx.), White, 6050.

Sphenopteris asplenioides Sternb., White, 6022.

brittsii Lx., White, 6050.

canneltonensis n. sp., White, 6050. eapitata n. sp., White, 6050.

capitata n. sp., white, 6050. cherophylloides (Brongn.) Presl., White, 6050.

eorrugata Newb., Newberry, 4083. eristata (Brongn.) Presl., White, 6050.

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(diploth mema) fureata Brongn., White, $6052.\,$

divarieata (Goepp.) Gein and Gutb., White, 6052.

egyptiaea Emmons, Ward, 5857. grevillioides Heer, Ward, 5846. harttii Dn., Ward, 6052. hildreti Lx., White, 6040. illinoisensis n. sp., White, 6050.

kaercheri n. sp., White, 6052.

lacoei n. sp., White, 6040. lacoei D. W., White, 6050.

laliloba?, Dawson, 1434.

macilenta L. and H., White, 6040. microcarpa Lx., Ward, 6052.

missonriensis n. sp., White, 6050. mixta Schimp., White, 6050.

patentissima (Ett.) Schimp., White, 6052.

pilosa Dn., White, 6052. pinnatifida (Lx.), White, 6050.

plurinervia Heer?, Fontaine, 1850.

royi Lx., White, 6052.

subcrenulata (Lx.), White, 6050.

suspecta n. sp., White, 6050. taffiin. sp., White, 6049.

valdensis Heer, Fontaine, 1847. valdensis Heer, Fontaine, 1846.

van ingeni n. sp., White, 6050. wardiana, n. sp., White, 6050.

(Crossotheca) ophioglossoides (Lx.), White, 6050.

(Hymenotheca) broadheadi n. sp., White, 6050. (Pseudopecopteris) obtusiloba Brongn.,

White, 6040. sp., White, 6050.

Sphenotroehns elaibornensis n. sp., Vaughan, 5735.

nanus (Lea), Vaughan, 5735.

Sphenotus Hall, Grabau, 2086.

æolus Hall, Lane, 3400. bicarinatus (Win.), Weller, 6006.

bicostatus n. sp., Weller, 6006.

bodenbenderi n. sp., Clarke, 976. gorceixi n. sp., Clarke, 976.

iowensis (Win.), Wefler, 6006.

rigidus (W. and W.), Weller, 6006. sinuatus n. sp., Miller and Gurley, 4002. truncatus (Conrad), Grabau, 2086.

Sphenozamites rogersianus Fontaine, Ward, 5857.

Spiladomyia Scudder, Scudder, 4894. simplex, Scudder, 4894.

Spiraxis Major, James, 2894. randalli, James, 2894.

Spirialis choctavensis Ald., Harris, 2316. elongatoidea Ald., Aldrich, 73. elongatoidea Ald., Harris, 2316.

Spirifer Sowerby, Graban, 2086.

Spirifer Sowerby, Hall and Clarke, 2264. angustus Hall, Grabau, 2086.

arenosus Conrad, Clarke, 971. asper Hall, Grabau, 2086. audaeulus (Conrad), Grabau, 2086.

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> biblicatus Hall, Weller, 6006. bimesialis Hall?, Girty, 2039. cameratus Morton, Beede, 387. canandaiguæ n. sp., Hall and Clarke, 2261a, 2263, 2268. carinatus, n. sp., Rowley, 4677a.

centronatus Winchell, Girty, 2038.

var. semifurcatus n. var., Girty, 2038. coniculus n. sp., Girty, 2039. consobrinus d'Orbigny, Grabau, 2038. erispatus n. sp., Hall and Clarke, 2261a, 2263, 2268.

deltoidens Herrick, Lane, 3400. disjunctus var. animasensis n. var., Girty,

disjunctus var. sulsifer n. var., Hall and Clarke, 2261a, 2263, 2268.

engelmanni Meek, Girty, 2038. granulosus (Conrad), Grabau, 2086.

var. clintoni Hall, Grabau, 2086. grimesi Hall, Herrick and Johnson, 2465. huronensis Win., Lanc, 3400. imbrex, Herrick and Johnson, 2465. insculptus n. sp., Rowley, 4677a. keokuk Hall, Weller, 5986. louisianensis n. sp., Rowley, 4677a. macronotus Hall, Grabau, 2086. marionensis Shumard (?), Girty, 2038. marionensis Shumard, Weller, 5994. medialis Hall, Lane, 3400. mucronatus Conrad, Grabau, 2076. mucronatus var. posterus n. var., Hall and Clarke, 2261a, 2263, 2268. murchisoni Castelnau, Clarke, 971. newberryi, Hall and Clarke, 2261a, 2263, 2268.

saffordi Hall, Clarke, 971. schucherti n. sp., Rowley, 4677a. striatus Martin, Herrick and Bendrat, 2464.

rockymontanus Marcou, Girty, 2037.

striatus var. madisonensis n. var., Girty, 2038.

subattenuatus Hall, Girty, 2038. subattenuatus, Hall?, Lanc, 3400. subrotundatus Hall, Weller, 6006. tullius Hall, Grabau, 2086.

williamsi n. sp., Hall and Clarke, 2261a, 2263, 2268.

(Cyrtia Dalman), Hall and Clarke, 2264. (Delthyris) sculptilis (Hall), Grabau, 2086. (Martinia) subumbonus Hall, Grabau,

(Reticularia) fimbriatus (Conrad), Grabau, 2086.

sp. Girty, 2038.

Spirifera aciculifera n. sp., Rowley, 4673. camerata Morton, Keyes, 3062. forbesi Norwood and Pratten, Keyes, 3062. grimesi Hall, Keves, 3062. (cf. Athyris) insolita, Lanc, 3400. keokuk Hall, Keyes, 3062. lineatoides Swallow, Keyes, 3062.

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(Martinia) lineata, Whitfield, 6099, Spiriferina d'Orbigny, Hall and Clarke, 2261,

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Spirigerella, see Athyris (Spirigerella) Waagen, Hall and Clarke, 2261. Spirillina orbicularis n. sp., Bagg, 148. Spiroloculina planulata, Bagg, 148.

Spirophyton, Udden, 5512. typum, James, 2895. sp., Weller, 5994.

Spiroplecta americana Ehrenberg, Woodward and Thomas, 6433.

clarki n. sp., Bagg, 143, 145, 148. Spirorbis Lamarck, Grabau, 2086. augulatus Hall, Grabau, 2086. anthracosia, Whitfield, 6099. assimilis n. sp., Clarke, 971.

blairi n. sp., Miller and Gurley, 3998. Spisula Gray, Dall, 1272.

(?) quadricentennialis Harris, Dall, 1265. (Hemimactra) Swainson, Dall, 1272. curtidens n. sp., Dall, 1272. delumdis conrad, Dall, 1272. densa n. sp., Dall, 1272. dodona n. sp., Dall, 1272.

duplinensis n. sp., Dall, 1272. magnoliana n. sp., Dall, 1272. marylandica n. sp., Dall, 1272. subponderosa d'Orbigny, Dall, 1272.

(Cymbophora) Gabb, Dall, 1272. (Leptospisula) Dall, Dall, 1272. (Schizodesma) Gray, Dall, 1272.

Spodotribus n. gen., Scudder, 4890. terrulentus, Scudder, 4890.

Spondylobolus McCoy, Hall and Clarke, 2260. hilli n. sp., Cragin, 1115.

Spondylus bostrychites Guppy, Dall, 1272. dumosis Morton, Dall, 1272. echinatus Martyn, Dall, 1272. fragilis n. sp., Stanton, 5199. inornatus n. sp., Whitfield, 6101. rotundatus Heilprin, Dall, 1272.

sp., Harris, 2313. Spongurus, Matthew, G. F., 3760. Sporangites huronensis Dawson (?) Girty, 2035.

radiatus n. sp., Duden, 1554. Sportella Deshayes, Dall, 1281. compressa H. C. Lea, Dall, 1281. constricta Conrad, Dall, 1281. gregorioi Coss., Aldrich, 74, lioconcha n. sp., Dall, 1281.

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pelex n. sp., Dall, 1281.

petropolitana n. sp., Dall, 1281. protexta Conrad, Dall, 1281.

unicarinata n. sp., Dall, 1281.

whitfieldi Dall, Dall, 1281.

yorkensis n. sp., Dall, 1281.

Squama n. gen., Logan, 3553, 3554.

lata n. sp., Logan, 3553, 3554.

spissa n. sp., Logan, 3553, 3554.

Stachella Waagen, Ulrich and Scofield, 5541. Stagodon validus n. sp., Marsh, 3671.

Sandella Gray, Dall, 1272.

(Eastonia) Gray, Dall, 1272.

Staphylinus lesleyi n. sp., Seudder, 4900. vetulus n. sp., Scudder, 4900.

Stauræsphæra, Matthew, G. F., 3760.

Stearoceras n. gen., Hyatt, 2816.

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gibbosum Hyatt, Girty, 2037.

Steganoblastus canadensis, Whiteaves, 6091.

Steganocrinus Meek and Worthen, Wachsmuth and Springer, 5765a.

Steganocrinus albersi n. sp., Miller and Gurley, 4003.

araneolus Meek and Worthen, Waehsmuth and Springer, 5765a.

araneolus seulptus (Meek and Worthen), Keyes, 3061.

benedicti n. sp., Miller, 3995.

blairi n. sp., Miller and Gurley, 4003.

eoneinnus Shumard, Keyes, 3061.

eoneinnus (Shumard), Wachsmuth and Springer, 5765a.

globosus W. and Sp. (nov. spec.), Waehsmuth and Springer, 5765a.

griffithi n. sp., Miller and Gurley, 4003. pentagonus (Hall), Keyes, 3061.

pentagonus (Hall), Wachsmuth and Springer, 5765a.

seulptus (Hall), Wachsmuth and Springer,

sharonensis n. sp., Miller and Gurley,

spergenensis n. sp., Miller and Gurley, 3999.

Steganus n. gen., Scudder, 4890. barrandei, Seudder, 4890.

Stegomus arcuatus n. gen. et sp., Marsh, 3698. Stegosaurus, Case, 768.

Stegosaurus, Marsh, 3701, 3702.

Stemmatia bieristatus, Hay, 2381.

bifurcatus, Hay, 2381.

cheiriformis, Hay, 2381.

eompactus, Hay, 2381.

kcokuk, Hay, 2381.

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Stenaster Billings, James, 2896.

grandis Meek, James, 2896.

harrisi (S. A. Miller), James, 2896. Stenecphora n. gen., Scudder, 4895.

punetulata n. sp., Seudder, 4895.

Stenognathus, n. gen., Newberry, 4082.

Stenogomphus n. gen., Seudder, 4895.

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Stenogomphus carletoni, Scudder, 4895.

Stenologis n. gen., Scudder, 4895.

venosa n. sp., Scudder, 4895.

Stenolophus religatus n. sp., Scudder, 4900.

Stenopoeeras n. gen., Hyatt, 2816.

Stenopora, Simpson, 4983.

spinulosa n. sp., Rogers, 4656.

spissa n. sp., Rogers, 4546.

tuberculata (Prout), Keyes, 3062.

Stenosehisma Conrad, Hall and Clarke, 2261a,

Stenotheca Salter, Grabau, 2092.

Stenotheca Salter, Matthew, 3770.

Stenotheca Salter, Ulrich and Scofield, 5541.

abrupta Shaler and Foerste, Grabau, 2092. concentrica, Matthew, 3770.

var. radiata, Matthew, 3770.

curvirostra Shaler and Foerste, Grabau,

exerta Sardeson, Ulrich and Scoffeld, 5541.

hicksiana, Matthew, 3770.

levis Walcott, Grabau, 2092.

nasuta, Matthew, 3770.

pauper Billings, Grabau, 2092.

triangularis, Matthew, 3770.

unguiformis n. sp., Ulrieh and Scofield,

Stephanella hindii n. sp., Dawson, 1452.

Stephanocoenia fairbanski n. sp., Vaughan,

Stephanocrinus Conrad, Weller, 6002.

eornetti n. sp., Miller, 3995.

elongatus n. sp., Miller, 3992.

hamelli n. sp., Miller, 3992.

obpyramidalis n. sp., Miller, 3992. osgoodensis, Miller, 3992.

osgoodensis (S. A. Miller), Weller, 6002.

Stephanograptus erassicaulis n. sp., Gurley,

exilis Lapworth n. sp., Gurley, 2217.

Stephanomorpha montieuliformis, n. sp., Vaughan, 5735.

Steptopora interporata n. sp., Rogers, 4656. Sterculia aperta Lesq., Lesquereux, 3470.

engleri n. sp., Kirehner, 3187.

mucronata n. sp., Lesquereux, 3470.

reticulata n. sp., Lesquereux, 3470. snowii n. sp., Lesquereux, 3470.

snowii Lesq.(?), Hollick, 2696.

snowii, Knowlton, 3234.

snowii var. disjuneta n. var., Lesquereux,

sp.?, Holliek, 2606, 2698.

Stereoerinus indianensis n. sp., Miller and Gurley, 4003.

Stereolasma n. gen., Simpson, 4984.

Steriphonotroehus puleher n. sp., Vaughan, 5735.

Sterrholophus, Marsh, 3701.

Stethaeanthus eompressus n. sp., Newberry,

productus n. sp., Newberry, 4082.

Stethocapsa, Matthew, G. F., 3760.

Stiboriopsis n. gen., Vaughan, 5734.

jamaicaensis n. sp., Vaughan, 5734.

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                                                    Paleontology-Continued.
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                                                      Genera and species described—Continued.
   Stictocella, Simpson, 4983.
                                                        Streblotrypa ulrichi n. sp., Rogers, 4656.
                                                        Strenuella, Matthew, 3789.
   Stictopora Hall, Grabau, 2086.
                                                            (?) attleborensis, Shaler and Foerste, mut.
   Stictopora, Simpson, 4983.
       palmipes Hall, Grabau, 2086.
                                                              vigilans n. mut., Matthew, 3789.
       permarginata Hall, Grabau, 2086.
                                                            strenua (Billings), Grabau, 2092.
                                                            strenua Billings sp., mut. robusta n. mut.,
       recta Hall, Grabau, 2086.
       sinuosa Hall, Grabau, 2086.
                                                              Matthew, 3789.
                                                        Strepsidura ficus Gabb, Harris, 2307.
       sp.?, Clarke, 971.
   Stictoporella n. gen., Simpson, 4983.
                                                            ficus Gabb, Aldrich, 73.
       (?) sp., Girty, 2038.
                                                            heilprini n. sp., Aldrich, 73.
   Stictoporina n. gen., Simpson, 4983.
                                                            heilprini, Harris, 2310.
   Stigmaria evenii Lx., White, 6050.
                                                            (?) mediavia n. sp., Harris, 2310.
       verrucosa (Martin) S. A. Miller, White,
                                                            pachecoensis n. sp., Stanton, 5198.
                                                        Strepsodus Hardingi (Dawson), Hay, 2388.
   Stiraderes n. gen., Scudder, 4890.
                                                            arenosus n. sp., Hay, 2388.
       conradi, Scudder, 4890.
                                                            dawsoni, n. sp., Hay, 2388.
   Stomatia intermedia n. sp., Cooper, 1071.
                                                        Streptelasma Hall, Grabau, 2086.
   Stomatopora, Simpson, 4983.
                                                        Streptelasma, Hall, 2266.
   Stomatopora Bronn, Ulrich, 5537.
                                                        Streptelasma, James, 2881.
       canadensis n. sp., Whiteaves, 6087.
                                                        Streptelasma Hall, Winchell and Schuchert,
       inflata Hall, Ulrich, 5537.
                                                          6318.
       proutana S. A. Miller, Ulrich, 5537.
                                                            breve n. sp. (Ulrich), Winchell and
       tenuissima Ulrich, Ulrich, 5537.
                                                             Schuchert, 6318.
       turgida Ulrich, Ulrich, 5537.
                                                            corniculum, James, 2881.
   Stomechinus liyatti Clark, Clark, 892.
                                                            corniculum Hall, Keyes, 3061.
   Stramentum n. gen., Logan, 3553.
                                                            corniculum Hall, Sardeson, 4803.
   Stramentum, Logan, 3554.
                                                            corniculum Hall, Winchell and Schu-
       hawarthii Williston, Logan, 3554.
                                                              chert, 6318.
       haworthi n. sp., Logan, 3553.
                                                            (?) parasiticum n. sp. (Ulrich), Winehell
       tabulatum n. sp., Logan, 3553, 3554.
                                                              and Schuchert, 6318.
   Straparollina obtusa n. sp., Whiteaves, 6074.
                                                            profundum (Owen), Sardeson, 4803.
       remota Billings, Grabau, 2092.
                                                            profundum (Conrad MS.) Owen, Winchell
   Straparollus Montfort, Grabau, 2086.
                                                              and Schuchert, 6318.
   Straparollus Montfort, Keyes, 3062.
                                                            rectum Hall, Grabau, 2086.
       ammon (White and Whitfield), Keyes,
                                                            robustum n. sp., Whiteaves, 6083.
                                                            robustum Whiteaves, Whiteaves, 6087.
       ammon (W. & W.), Weller, 6006.
                                                            rusticum Billings, Winchell and Schu-
       angularis n. sp., Weller, 6006.
                                                             chert, 6318.
       blairi n. sp., Miller, 3992.
                                                            strictum Hall, Girty, 2034.
       catilloides (Conrad), Keyes, 3062.
                                                            ungula Hall, Grabau, 2086.
       claytonensis n. sp., Calvin, 684.
                                                            waynense (Safford), White, 6040.
       clymenioides Hall?, Girty, 2039,
                                                            sp. Girty. 2039.
       latus (Hall), Keyes, 3062.
                                                        Streptis Davidson, Hall and Clarke, 2260.
       macromphalus Win., Weller, 6006.
                                                        Streptodicus n. gen., Miller, 3995.
       missouriensis n. sp., Miller and Gurley,
                                                            indianensis n. sp., Miller, 3995.
                                                        Streptorhynchus King, Hall and Clarke, 2260.
       obtusus (Hall), Keyes, 3062.
                                                            crassum, Whitfield, 6099.
       parva n. sp., Cleland, 1012.
                                                            crenistria (Phillips), Keyes, 3062.
       pernodosus Meek and Worthen, Keyes,
                                                            flabellum, Whitfield, 6099.
                                                            hydraulicum, Whitfield, 6099.
       planidorsatus Meek and Worthen, Keyes,
                                                            lens White, Keyes, 3062.
                                                            ulrichi n. sp., Hall and Clarke, 2260, 2268.
       pristiniformis n. sp., Calvin, 684.
                                                            williamsi n. sp., Weller, 5986.
       rudis Hall, Grabau, 2086.
                                                        Strepula Jones and Hall, Graban, 2086.
       similis, Whitfield, 6099.
                                                            sigmoidalis Jones, Grabau _083.
       spergenensis (Hall), Keyes, 3062.
                                                        Striarca Conrad, Whitfield, 6101.
       utahensis Hall and Whitfield, Girty, 2038.
                                                        Striatopora Hall, Lambe, 3374.
       valvataformis Shumard, Keyes, 3062.
                                                            carbonaria White, Keyes, 3061.
       (ef. Oriostoma) incarinatum n. sp.,
                                                            flexuosa Hall, Lambe, 3374.
         Foerste, 1835.
                                                            gorbyi n. sp., Miller, 3995.
       ? sp., Weller, 5994.
                                                            linneana Billings, Lambe, 3374.
   Streblotrypa Ulrich, Grabau, 2096.
                                                        Stribalocystites gorbyi n. sp., Miller, 3995.
   Streblotrypa, Simpson, 4983.
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hamiltonense (Nicholson), Grabau, 2086. striatopora n. sp., Rogers, 4656.

sphæroidalis n. sp., Miller and Gurley,

tumidus n. gen. et sp., Miller, 3992.

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Stricklandinia Billings, Hall and Clarke, 2261a. 2264.

castellana White, Weller and Davison,

Strictoporella Ulrich, Ulrich, 5537.

angularis Ulrich, Ulrich, 5537.

eribrosa Ulrich, Ulrich, 5537.

dumosa n. sp., Ulrich, 5537.

frondifera Ulrich, Ulrich, 5537. rigida Ulrich, Ulrich, 5537.

var. intermedia n. var., Ulrich, 5537.

Strigilla Turton, Dall, 1281.

flexuosa Say, Dall, 1281.

galvestonensis n. sp., Harris, 2309.

pisiformis Linné, Dall, 1281.

Stringocephalus Defrance, Hall and Clarke, 2261a, 2264.

Strobilepsis spinigera, Clarke, 951.

Strobilites inquirendus n. sp., Hollick, 2698.

Stroboceras, Hyatt, 2816.

Strombina mira n. sp., Guppy and Dall, 2214. Strombinella Dall, Guppy and Dall, 2214.

acuformis n. sp., Guppy and Dall, 2214.

Stromatocerium, James, 2881.

canadense, James, 2881.

Stromatopora, James, 2881.

expansa Hall and Whitfield, Keyes, 3061.

hindei, James, 2881.

indianiensis n. sp., James, 2881.

(?) lielienoides, James, 2881.

ludlowensis, James, 2881.

papillata, James, 2881.

scabra, James, 2881.

subcylindrica, James, 2881.

tubularis, James, 2881. Stromatotrypa n. gen., Ulrich, 5537.

ovata n. sp., Ulrich, 5537.

Strombina gibberula var. galvestonensis n. var. Harris, 2309.

(Amyela) lævis n. sp., Whitfield, 6101.

Strombus albirupianus n. sp., Dall, 1259.

aldrichi n. sp., Dall, 1259.

chipolana n. sp., Dall, 1259.

leidyi Heilprin, Dall, 1259. pugilis Linné, Dall, 1259.

Strophalosia King, Grabau, 2086.

Strophalosia King, Hall and Clarke, 2260.

beccheri n. sp., Rowley, 4673.

cymbula, Hall and Clarke, 2268.

rockfordensis n. sp., Hall and Clarke, 2260, 2268.

truncata (Hall), Grabau, 2086.

Stropheodonta Hall, Grabau, 2086.

Stropheodonta Hall, Hall and Clarke, 2260.

concava Hall, Grabau, 2086.

demissa Conrad, Grabau, 2086.

lincklæni Hall, Clarke, 971.

plicata Hall, Grabau, 2086.

(Donvillina) inæquistriata (Conrad), Grabau, 2086.

(Leptostrophia) junia Hall, Grabau, 2086. (Leptostrophia) perplana Conrad, Grabau. 2086.

(Pholidostrophia) nacrea (Hall), Grabau, 2086.

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Strophia albers, Dall, 1259.

(anodonta var.?) floridana Dall, Dall,

(Eostrophia) anodonta n. sp., Pall, 1259. Strophocrinus dicyclicus u. gen. et sp., Sarde-

son, 4808. Strophodonta demissa (Conrad) Keyes, 3062.

Strophomena Rafinesque (de Blainville), Winehell and Schuchert, 6319.

alternata (Conrad), Keyes, 3062.

avata n. sp., Matthew, 3746.

billingsi n. sp., Winchell and Schuchert,

conradi n. sp., Hall and Clarke, 2260, 2268. emaciata, Winchell and Schuchert, 6298, 6319.

fluctuosa Billings, Winchell and Schuchert, 6319.

incurvata Shephard sp., Winchell and Schuchert, 6319.

neglecta var. acuta n. var., Winchell and Schuchert, 6319.

planodorsata, Winchell and Schuchert, 6298, 6319.

planumbona (Hall), Keyes, 3062.

rhomboidalis, Herrick and Johnson, 2465. rugosa (Rafinesque MS.) Blainville, Winchell and Schuchert, 6319.

var. subtenta (Conrad MS). Hall, Winchell and Schuchert, 6319.

scofieldi, Winchell and Schuchert, 6298, 6319.

septata, Winchell and Schuchert, 6298, 6319.

trentonensis n. sp., Winchell and Schuchert, 6319. trilobata Owen sp., Winchell and Schu-

winchelli n. sp., Hall and Clarke, 2261.

winchelli Hall, Winchell and Schuchert,

(Orthothetes) hanoverensis, Foerste, 1835.

(Orthothetes) tenuis, Foerste, 1835. (Strophonella) patenta, Foerste, 1835.

Strophonella Hall, Hall and Clarke, 2260. costalula n. sp., Hall and Clarke, 2261a, 2263, 2268.

crassa n. sp., Rowley, 4674.

Strophostylus Hall, Keyes, 3062.

Strophostylus Hall, Ulrich and Scofield, 5541. bivolve (W. and W.), Weller, 6006.

expansus Conrad, Clarke, 971. nana Meek and Worthen, Keyes, 3062.

remex (White), Keyes, 3062.

reversus (Hall), Keyes, 3062.

peoriensis (McChesney), Keyes, 3062. textilis n. sp., Ulrich and Scofield, 5541.

Stropora, Simpson, 4983.

Strotocrinus M. and W., Wachsmuth and Springer, 5765a.

Strotocrinus blairi n. sp., Miller and Gurley,

ornatus n. sp., Miller and Gurley, 3999. regalis Hall, Wachsmuth and Springer, 5765a.

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Strotoerinus glyptus Hall, Wachsmuth and
Springer, 5765a.

regalis (Hall), Keyes, 3061.

venustus n. sp., Miller and Gurley, 3997a. Strybaloeystis? elongatus n. sp., Rowley, 4677.

missouriensis n. sp., Rowley, 4677.

Stylarea von Seebach, Lambe, 3374. parva Billings (sp.), Lambe, 3374.

Stylastrea anna, Whitfield, 6099.

Stylina collinsi n. sp., Gregory, 2171.

Stylinodon cylindrifer Cope, Wortman, 6492. mirus Marsh, Wortman, 6492.

mirus, Marsh, 3706.

Styliola primæva n. sp., Matthew, 3746. Styliolina Karpinsky, Grabau, 2086.

fissurella Hall, Grabau, 2086.

spica (Hall), Grabau, 2086.

Stylocœnia duerdeni n. sp., Vaughan, 5734. Stylonurus lacoanus, Beecher, 380, 383.

Stylophora minutissima n. sp., Vaughan, 5735. ponderosa n. sp., Vaughan, 5735.

Styplobasis knightiana Cope n. gen. et sp., Cope, 1076.

Styptobasis aculeata n. sp., Copc, 1093.

Subelymenia d'Orbigny, Hyatt, 2816.

Subulites Conrad, Ulrich and Scoffeld, 5541. beloitensis n. sp., Ulrich and Scoffeld, 5541.

benedicti n. sp., Miller, 3992. canadensis n. sp., Ulrich and Scoffeld,

canadensis n. sp., Ulrich and Scofield, 5541.

compactus Whiteaves, Whiteaves, 6080. compactus? var., Whiteaves, 6080. conradi n. sp., Ulrich and Scofield, 5541. directus n. sp., Foerste, 1835.

dixonensis n. sp., Ulrich and Scofield,

elongatus Conrad, Keyes, 3062. nanus n. sp., Ulrich and Scofield, 5541. parvus n. sp., Ulrich and Scofield, 5541. pergracilis n. sp., Ulrich and Scofield,

5541. regularis n. sp., Ulrich and Scofield, 5541. (Polyphemopsis) plani-lateralis n. sp.,

Foerste, 1835. sp. undet., Ulrich and Scofield, 5541. Sucssia Deslongehamps, Hall and Clarke,

Surcula crenatospira n. sp., Cooper, 1071. gabbi, Aldrich, 74.

inconstans n. sp., Cooper, 1071.

monilifera n. sp., Cooper, 1071. nasuta Whitf., Harris, 2316.

parva (?) Whitfield, 6101. perobesa n. sp., Whitfield, 6097. strigosa, Whitfield, 6097.

Surculites annosus, Whitfield, 6097. cadavarosus n. sp., Whitfield, 6097. curtus n. sp., Whitfield, 6097.

Surirella woolmaniana peticolas n. sp., Boyer, 518.

Sycium cloacinum Cope, Cope, 1104.

Syllomus erispatus n. gen. et sp., Cope, 1100. Symbathocrinus dentatus Owen and Shumard, Keyes, 3061. Paleontology-Continued.

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Symbathoerinus wortheni Hall, Keyes, 3061.

Symmorium reniforme Cope, Cope, 1093.

Synaptophyllum n. gen., Simpson, 4984.

Synbathoerinus angularis n. sp., Miller and Gurley, 3997e.

illinoisensis n. sp., Miller and Gurley, 3999.

Synconodon n. gen., Osborn, 4205. sexicuspis n. sp., Osborn, 4205.

Syndosyma (?) nuculoides, Whitfield, 6101. Synocladia, Simpson, 4983.

rectisyla, Whitfield, 6099.

Syntomostyles n. nom., Scudder, 4890. rudis, Scudder, 4890.

Syntrilasma hemiplicata (Hall), Keyes, 3062. Syntrophia Hall, Hall and Clarke, 2261a, 2264. palmata n. s., Cleland, 1012.

Syringoceras n. gen., Hyatt, 2819. Syringolites Hinde 1879, Lambe, 3374.

huronensis Hinde, Lambe, 3374.

Syringopora, Girty, 2032. Syringopora Goldfuss, Lambe, 3374.

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Amphibolite, Winchell and Grant, 6376.

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Analcite-basalt, Cross, 1197.

Analcite diabase, Fairbanks, 1748.

Analcite rock, Coleman, 1042.

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Andesite, Becker, 345.

Andesite, Bergeat, 423.

Andesite, Cross, 1187, 1190, 1191, 1192.

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Andesite, Hague, 2236.

Andesite, Hills, 2599.

Andesite, Iddings, 2823, 2824, 2845, 2846.

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Aplite, Turner, 5457, 5479.

Aplite, Washington, 5875.

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Augite-porphyrite, Bascom, 276.

Augite-porphyrite, Ferrier, 1813.

Augite-porphyrite, Matthew, W. D., 3798.

Augite-porphyrite, Merrill, G. P., 3951.

Augite-porphyrite, Williams, 6154. Augite-porphyry, Turner, 5467.

Augite-syenite, Ferrier, 1813.

Augite-syenite, Lindgren, 3515.

Augite-syenite, Sears, 4904.

Augite-syenite, Weed and Pirsson, 5936.

Augite-syenite-gneiss, Cushing, 1246.

Augite-syenite-porphyry, Cross, 1190.

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Basalt, Darton and Keith, 1327.

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Basalt, Emmons, Cross, and Eldridge, 1707.

Basalt, Fairbanks, 1753.

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Basalt, Hagne, 2236.

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Gabbro, Coleman, 1027.

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Gabbro, Turner, 5453, 5465, 5471, 5481.

Gabbro, Turner and Ransome, 5470, 5485.

Gabbro, Washington, 5874.

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Gabbro-diorite, Cross, 1201.

Gabbro-diorite, Lord, 3572, 3574.

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Gueiss, Ells, 1641. Gueiss, Ferrier, 1816.

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Hornblende-mica-schist, Watson, 5888.

Hornblende picrite, Merrill, G. P., 3951.

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Hornblende-porphyrite, Cross, 1185.

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Hornblende-schist, Lane, 3382.

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